국제학석사학위논문

The Impact of China's Economic Engagements on Private Sector Development in Sub-Saharan Africa

중국의 진출이 사하라 이남 아프리카의 민간부문개발에 미치는 영향

2018년 2월

서울대학교 국제대학원

국제학과 국제통상전공

전 혜 경

Master's Thesis

The Impact of China's Economic Engagements on Private Sector Development in Sub-Saharan Africa

Thesis by

Hae-Kyeung Chun

A Thesis Submitted in Fulfillment of the Requirements for the
Degree of Master of International Studies,
International Commerce Major

February 2018

Graduate School of International Studies
Seoul National University
Seoul, Republic of Korea

중국의 진출이 사하라 이남 아프리카의 민간부문개발에 미치는 영향

지도교수 김종섭

이 논문을 국제학 석사 학위논문으로 제출함

2018년 2월

서울대학교 국제대학원

국제학과 국제통상전공

전 혜 경

전혜경의 석사학위논문을 인준함

2018년 2월

위 원 장 안 덕 근 (인)

부 위 원 장 변 웅 (인)

위 원 김 종 섭 (인)

THESIS ACCEPTANCE CERTIFICATE

The undersigned, appointed by

The Graduate School of International Studies

Seoul National University

Have examined a thesis entitled

The Impact of China's Economic Engagements on Private Sector Development in Sub-Saharan Africa

Presented by **Hae-Kyeung Chun**

Candidate for the degree of Master of International Studies and hereby certify that it is worthy of acceptance:

Committee Chair Dukgeun Ahn

Committee Vice Chair Oung Byun

Thesis Advisor Chong-Sup Kim

Abstract

The Impact of China's Economic Engagements on Private Sector Development in Sub-Saharan Africa

Hae-Kyeung Chun
International Commerce
Graduate School of International Studies
Seoul National University

China's growing role in Sub-Saharan Africa has attracted considerable attention across various media and academia platforms – not to mention traditional donor countries. However, the emergence of China as the largest economic partner of Sub-Saharan Africa has been largely received with negative views, with the country often facing demonization. The main point of criticism rests on the assumption that the primary motivation of China in entering into the continent is for it to secure natural resources, with all its projects operated by state-owned enterprises (SOEs) and driven by Chinese state interests. The conventional angle is not wholly mistaken, but considers the issue from only one dimension.

To better understand and explain the interactions and potential impacts, this thesis examines China's economic engagement in Sub-Saharan Africa from a Private Sector Development (PSD) perspective. The study is conducted by synthesizing the undervalued opportunities offered by China in Sub-Saharan Africa through a PSD analytical framework, and assessing whether China contributes to laying the foundations for the development of the private sector in Sub-Saharan Africa.

This thesis finds that, even though China's entry into the continent is primarily driven by pragmatic reasons, the presence of Chinese firms in Africa offers various opportunities in terms of labor market development, social and economic infrastructure and service improvement, and value chain development, all of which contribute to the development of the private sector. In addition, several unique characteristics of the Chinese presence have given new economic and geopolitical importance to the continent and provide an alternative to Africa's traditional economic partners.

This paper contributes to the current debate on the China-Africa relationship, not by providing conclusive empirical answers on whether China's presence in Africa is good or bad, but rather through addressing the knowledge gap in the current literature by conceptualizing and revealing those fragmented and undiscovered stories about the role and impact of China, particularly on Africa's private sector development.

Keywords: China; Sub-Saharan Africa; Private Sector Development (PSD); trade; FDI; foreign aid

Student Number: 2016-25012

Table of Contents

Tables and Figures

I. Introduction

"[China's] million-man army is moving relentlessly across Africa … locking down strategic natural resources, locking up emerging markets, and locking out the United States" (Navarro and Autry 2011). This simple phrase extracted from a book called, *Death by China,* co-written by Peter Navarro and Greg Autry[1] demonstrates how China's presence in Africa is portrayed today. Critics often characterize China's engagement in Africa as "resource nationalism," and "the new scramble for Africa," but is China really the new colonial power in Africa?

The long-lived historical, political and economic ties between China and Sub-Saharan Africa (hereafter referred to as Africa or SSA) have deepened and intensified in recent years through rapidly growing economic engagements – namely in the forms of bilateral trade, foreign direct investment (FDI) and aid. As of February 2018, China is SSA's largest bilateral trading partner, surpassing the United States, and as the largest emerging country to invest and provide foreign aid in Africa. However, as mentioned previously, the current acceleration of economic partnerships has largely been viewed negatively, and has sparked debate around two issues: the motivation behind China's entry into the continent, and its implications for Africa's economic growth and

[1] Peter Navarro currently serves as the Head of the White House National Trade Council and Greg Autry is Assistant Professor of Clinical Entrepreneurship, Marshall School of Business, University of Southern California.

sustainable development (Gu 2009).

Conventional wisdom holds that China's economic engagements with Africa are heavily focused on natural resources, conducted by large-scale state-owned enterprises (SOEs), and driven by Chinese state's economic and political interests (Gu 2009). In addition, there is a widespread suspicion that Chinese infrastructure projects are not designed for the people of Africa, but rather to facilitate the extraction and export of natural resources to China. Also, Chinese companies are widely known for bringing their own workers to the continent and not contributing to local employment and skills development in Africa. This anecdote is not arbitrary as China's presence in the continent is massively concentrated on securing natural resources and directed by pragmatic reasons.

However, this single approach cannot fully explain the China-Africa relationship and could be seen as misguided regarding the role and developmental impact that China may have in SSA through the channels of trade, aid and FDI. Africa and China can be strategic partners for each other in climbing the same ladder of structural transformation. China can take a lead role in assisting low-income African countries as China has or used to have similar levels of physical, institutional and human capital, and China is in the middle of structural transformation itself through the imitation of foreign companies, the acquisition of tacit knowledge, the accumulation of factor endowments

and the expansion of its comparative advantage (Lin and Wang 2014). Having the most up-to-date development experience, China could offer more appropriate and practical advice and knowledge to African economies than traditional development partners.

To better understand and capture the interactions and the impact of China on the continent, this thesis examines China's economic engagements with Africa from a Private Sector Development (PSD) perspective. The study is conducted by synthesizing the undervalued opportunities offered by China in Africa through the PSD analytical framework, and assessing whether China contributes to laying the foundations for the development of the private sector in SSA. Given the complexity and diversity of interactions, this paper aims to contribute to the current debate on the China-Africa relationship, not by providing conclusive empirical answers on whether China's presence in Africa is good or bad, but rather by addressing the knowledge gap in the current literature by conceptualizing and revealing fragmented and undiscovered stories about the role and impact of China, particularly on Africa's private sector development.

This study is largely qualitative in nature, due to the paucity of reliable data on China-Africa economic partnerships. An in-depth analysis of China's contribution to Africa's private sector development will be made through the PSD analytical framework, drawing on many case studies and the hard data available – mostly field studies and surveys. The supporting evidence and data may seem a little fragmented and anecdotal,

but, seen in combination, they are still able to show a general trend and reveal the realities of Chinese engagement in Africa beyond the extractive industry.

The paper begins by exploring patterns and trends in China's trade and FDI at the aggregate level for SSA. This section looks at the volume and product composition of merchandise trade between China and SSA, as well as Chinese FDI flows and stocks by investor and sector. In addition, the characteristics and features of Chinese private investors in the continent are closely analyzed. Based on this examination, the impact of China on private sector development in SSA is then evaluated with a PSD analytical framework.

The first section examines how China addresses the restrictive business environment in Africa, with a special focus on local labor market development and business regulatory reforms. The second section provides an in-depth analysis of how China handles the issue of limited access to social and economic infrastructure in Africa, drawing on case studies from the ICT, energy, education and health sectors. The last section offers a comprehensive analysis of how China tackles weak value chain linkages, particularly in the manufacturing sector, and limited financial access for micro-, small- and medium-size enterprises (MSMEs) in Africa. Based on the examination, an overall conclusion can be drawn of the influence of China on Africa's PSD.

The following section presents the evolution and dynamism of China's vastly

increased economic involvement in SSA from a political and historical perspective, followed by an explanation of PSD terminology and the analytical framework. After an examination of the role and impact of China in Africa from a PSD perspective, the thesis discusses challenges and concludes with some implications.

II. Literature Review

This section reviews the current literature surrounding China-Africa relations in the modern era. The first part examines past studies on this subject in the context of the Cold War; the second considers the state of relations since China's 'Go Out Policy'.

2.1. China-Africa Relations I: Cold War Period

In recent years, China's growing role in Africa has attracted considerable attention across the media and academia – not to mention traditional donors, like Europe and the United States. This current upsurge in interest is new although China and Africa have a long-standing relationship. China's encounter with Africa dates back more than five centuries and has progressed gradually.[2] However, despite the richness of these historical contacts, it was not until 1956 that China first established diplomatic relations with an African country, Egypt (Li 2007).

From the Chinese Revolution in 1949 until its economic opening in 1978, China's Africa policy was deeply influenced by ideology and the dynamics of the Cold War. The Mao era has been stereotyped as producing a China that was closed and isolated,

[2] The earlier literatures provide the historical background to China-Africa relations – Duyvendada, J.J.L., *China's Discovery of Africa*. London: 1949; Filesi, Teobaldo, *China and Africa in the Middle Ages*, Frank Cass Publisher, 1972; Snow, Philip, *The Star Raft: China's Encounter with Africa,* London:1988; Gao, Jinyuan, 'China and Africa: The development of relations over many centuries', *African Affairs*, 83:331(1984), pp241 – 250. In particular, Phillip Snow portraits a complex and long-standing relationship between China and Africa in the most comprehensive manner.

but in fact China was making extensive efforts to stretch its influence throughout the world, particularly in the Third World. In the wake of the Sino-Soviet split in the early 1960s, China supported the liberation struggles in Africa and prioritized the defeats of imperialism and revisionism as its primary objective (Li 2007; Sun 2014).

An historical event for linking its ideological stand with its foreign policy was Premier Zhou Enlai's African tour in 1963- 64 (Large 2008). During his visit to 10 African countries, the *Five Principles Governing the Development of Relations with Arab and African countries and the Eight Principles of Economic Assistance* was proposed, and these aid principles were designed to compete concurrently with the "imperialists" (the United States) and the "revisionists" (the Soviet Union) for Africa's approval and support (Sun 2014). This immediately prompted an increase in media and academic interest, and literature from the 1960s articulated concerns about the impact of China on African politics, depicting China as an ideological threat to African countries which had only recently gained independence (Large 2008).

During post-colonial period, a rivalry with Taipei for diplomatic recognition from the newly independent African states, and a clash with the Soviet Union by increasing competition for influence in the Third World was intensified. Amid the Cultural Revolution, under the influence of a radical revolutionary ideology, China provided large volumes of foreign aid to African countries, even though its domestic

economy was facing difficulties (Sun 2014). It was a time when some landmark structures – such as stadiums, hospitals and conference centers – were constructed in African countries. A notable example is the Tanzania-Zambia railway, built between 1970 and 1975, for which China provided a zero-interest loan of RMB 980 million (Sun 2014). In the Cold War period and before China's reform and opening up, a huge amount of aid served as an important political tool that China utilized to gain diplomatic recognition in Africa, and by the mid-1980s, China's extensive aid programs had earned it recognition by 44 African countries.

However, beginning with reform and opening up in 1979, China gradually abandoned this approach and modified its policy so as to better support its domestic economic development. China's Africa policy has shifted from ideologically driven collaboration to "mutually beneficial economic cooperation" (Li 2007). Economic assistance began to include other forms of support, such as preferential and discounted loans, and was often linked to promote services contracts, investment and trade. In addition, instead of utilizing ideology to build diplomatic ties with Africa, China has developed extensive relations with all African countries that embrace the One China policy. This originates from a six-decade long rivalry with Taipei for diplomatic recognition by African states. For regime legitimacy, it was crucial for Beijing to be recognized as the only lawful representative of China on the continent and this competition has often been invoked in the literature to explain Beijing's political

pragmatism in Africa (Large 2008).

2.2. China-Africa Relations II: Since China's "Go Out Policy"

Beginning in the mid-1990s, the theory of "utilizing both domestic and international markets and resources" began to prevail in China's foreign economic relations and this led to the launch of the "Go Out Policy"[3] in 1999 (Timokhina 2014). Given that many African countries are rich in oil, minerals and raw materials, and have a relatively friendly attitude towards China, Africa became one of the top destinations for 'Go Global Strategy'. The implementation of this policy substantially increased economic ties between China and Africa in terms of aid, trade and investment. As a result, within two decades, China emerged as a significant source of FDI and became Africa's largest trading partner, replacing traditional partners such as the United States and European countries.

At the beginning, China's emergence as Africa's biggest economic partner was received with mixed views – with fear and disapproval by Western scholars and often greater positivity by their African and Chinese counterparts (Mawdsley 2008). Given that fuels and mining products constitute most of China's merchandise import

[3] China's 'Go Out Policy' was mainly about investing abroad and it was a major move in China's economic and diplomatic expansion in the 1990s, and new chapter of expansion history began with the accession of China to the WTO in 2001 (Gu, 2009)

from Africa, Chinese financing was often associated with securing Africa's natural resources, and large SOEs operating in resource sector (Kaplinsky and Morris 2009). Most literature in the mid-2000s focused on trade and resource extraction, and China's motive for engagement in Africa was regarded as a mere search for natural resources to meet the demands of its own industrialization (Large 2008).[4]

However, this single-view approach – taking one negative example of China's engagement with Africa and applying it to the entire relationship – has been gradually corrected and there is a growing body of work on more diverse determinants and patterns in China's move to Africa. Biggeri and Sanfilippo (2009) examine the relationship and conclude that China's activity in Africa is driven by "strategic interaction among three main channels –FDI, trade and economic cooperation, as well as by pull factors- natural resources and market potential." Chen, Dollar and Tang (2016) investigate patterns and determinants of Chinese overseas direct investment (ODI) in Africa through empirical studies and conclude that Chinese ODI is relatively "more concentrated in skill-intensive sectors in skill abundant countries but in capital-intensive sectors in capital-scarce countries. These patterns are mostly observed in politically

[4] See Erica S. Downs, 'The Chinese energy security debate', The China Quarterly, 177 (2004), pp. 21 -41; Linda Jakobson and Zha Daojiong, 'China and the worldwide search for oil security', Asia-Pacific Review 13, 2 (2006), pp.60 -73; Jonathan Holslag, 'China's new mercantilism in central Africa', African and Asian Studies 5, 2 (2006), pp133-69; Ricardo Soares de Oliveira, 'Making sense of Chinese oil investment in Africa' in Alden, Large and Soares de Oliveira (eds), China Returns to Africa.

unstable countries, suggesting stronger incentives to seek profits in tougher environment."

In addition, assumptions about the homogeneity of China and Africa – that there is one impact of China and one response from the continent – was rebutted by Chris Alden (2007). Alden lays out a broad typology of states in Africa and emphasizes the nature of the individual African regimes when analyzing the different impacts of China on African countries (Mohan 2008). Additionally, Alden argues that China's economic strategy and interest in Africa needs to be separated between large-scale SOEs and private enterprises. This argument was supported by Reilly and Na (2007), who argued that so many Chinese public and private companies are active in Africa that "it is impossible and unwise to talk of China's African interests or even a Beijing Consensus," as central control would not be feasible (Mohan 2008).

In recent years, there has been a small but increasing number of papers considering the economic effects of China's involvement in Africa, with two contrasting views standing out. Regarding trade relations, Meyersson et al. (2008) finds that Africa's primary product exports to China has significant positive effects on economic growth and investment in Africa, whereas there is no effect on Africa's growth from its primary product exports to the world (Busse, Erdogan and Mühlen 2016). On the other hand, Drummond and Liu (2013) contend that, although increasing volumes of trade with China has contributed to the diversification of exports by African countries, it has also

made them sensitive to spillovers from China. For example, based on a panel data analysis, "an increase (decline) in China's domestic investment growth is linked with an increase (decline) in African countries' export growth, with greater impact for resource-rich countries."

In respect to the effects of Chinese FDI in Africa, while Zhang et al. (2014) find that Chinese FDI has no significant impact on African growth, Whalley and Weisbord (2012) conclude the opposite – that Chinese FDI has partly contributed to African growth in the years, both immediately before and after the financial crisis. In addition, Gu (2009) examines an increase in investment in Africa by Chinese private enterprises and finds that it has a positive effect on the creation of job opportunities and industrial development in Africa. Finally, Rui (2010) argues that the quality of domestic institutions is highly relevant in determining how well the country can enjoy the benefits of Chinese FDI, drawing on the case of the Chinese National Oil Corporation's investment in Sudan.

Earlier works on China-Africa relations concentrated on its ideologically driven interactions during the Cold War, and China's massive foreign aid as a political tool in its rivalry with the Soviet Union and Taipei for diplomatic recognition in the Third World. Since its economic opening, most studies have spotlighted China's expansionist march into the continent in search of natural resources for the sake of its domestic

industrialization. Today, demonizing China's presence in the continent still remains the mainstream. However, China's relations with SSA have steadily evolved and diversified over time and recently, a few but a growing number of scholars have highlighted China's modified and expanded economic engagements with SSA. Synthesizing these studies, what China is actually doing in Africa in terms of aid, trade and investment, and how those activities influence Africa's private sector development, will be explored in greater detail in subsequent sections.

III. Analytical Framework

3.1. Private Sector Development Terminology

Private Sector Development (PSD) refers to a range of strategies and approaches for stimulating economic growth and reducing poverty in developing countries through the creation of an enabling environment for private enterprise. The private sector does not exclusively imply large-scale multinational corporations, but also includes small- and medium-enterprises (SMEs) and individual entrepreneurs, such as smallholder farmers and retail traders.

Private sector development as part of the international development industry began in the 1980s, emerging from a shift away from thinking about the centrality of the state in achieving development and towards the private sector as the principal agent (Reiner and Staritz 2013). This shift was promoted by major international organizations – most notably the World Bank – and PSD strategies and approaches have evolved over the years. Initially, development agencies addressed individual business development issues by offering finance and support services. For instance, it is estimated that 80% of the World Bank's support for private sector development was designated to businesses (OECD 2004). In addition, support often came with an implicit or explicit subsidy, and aid to developing countries was frequently tied to goods and services from firms in the

donor countries (DFID 2008). While these programs facilitated the growth and expansion of some companies, the interventions were criticized as being ineffective for wider market development (DFID 2008).

In the 1990s, as a response to increasing concerns about poverty reduction, PSD programs highlighted the idea of sustainable and pro-poor economic growth by working through markets and private sector agents (OECD, 2004). Most national donor agencies followed this trend and developed PSD interventions which focused on SMEs and microfinance (DFID, 2008). Most recently, the market system as a whole and the overall business and investment environment have been put at the heart of PSD strategies (DFID, 2008). Consequently, PSD covers a diverse set of approaches, such as attracting FDI, reforms of the business environment and regulations, the reinforcement of market development, the improvement of access to finance, the development of business linkages and value chains and the expansion of social and economic infrastructure etc. (Vaes and Huyse 2015).

3.2. PSD Analytical Framework

There is a generally broad but strong consensus on how a vibrant private sector can play a crucial role in economic development, on the basis that it is an engine of growth, innovation, prosperity, and the main long-term source of jobs and incomes (Reiner and Staritz 2013). In many developing countries, the public sector constitutes a major source of formal employment. However, the government cannot provide an unlimited number of jobs. Dynamic private initiatives are vital for job creation as the private sector can generate much-needed employment for the future. Additionally, the World Bank's report, *Voices of the Poor*, highlighted that the most important factor determining the fate of poor people, for better or for worse, is entrepreneurial activity and the opportunities for jobs (World Bank 2001). Hence, today there is a pervasive emphasis on PSD.

However, the contribution that the private sector can make to development depends on its performance and the fulfilment of certain conditions, such as the rule of law; an educated, skilled and healthy workforce; sufficient 'hard' and 'soft' infrastructure; a stable macroeconomic environment, and access to financial services (AfDB 2013). Nonetheless, a single approach to creating an enabling business environment for the private sector does not exist; the focus and scope of PSD strategies and approaches are slightly different among multilateral or regional development organizations and bilateral donors.

Within the scope of this research, the AfDB PSD Strategy will be adopted as an analytical framework which is tailored for and by African countries. Although it does not tackle all issues regarding PSD, it has identified areas of intervention for African countries and crafted key pillars and target outcomes in a comprehensive manner**.** In addition, its implementation has been endorsed by international communities. The original AfDB PSD strategy comprises three pillars, with nine interlinked target outcomes and 25 operational areas which are designed to address the key challenges of PSD in Africa. However, as it is difficult to conduct in-depth research across all areas, the most relevant target outcomes and operational areas have been identified, as shown in Table 1. The details of each pillar will be elaborated further in later sections.

In this paper, due to discrepancy of reliable data, quantitative analysis with consistent data is challenging. Thus, China's contribution to Africa's PSD will be analyzed from the point of each operational area in this analytical framework with qualitative evidence, such as case studies and the available data, usually field surveys. It is acknowledged that the supporting evidence may be fragmented and anecdotal, but together the evidence still has the power to illustrate a general trend and reveal what China is actually doing in Africa.

Table 1. Analytical Framework – The AfDB PSD Strategy

KEY CHALLENGES	PILLARS	TARGET OUTCOMES	OPERATIONAL AREAS
Restrictive business environment	PILLAR I: Investment and Business Climate	1.1. More efficient national and regional factor and product market	•Local labor market development
		1.2. Improved investment and business climate in Regional Member Countries (RMCs) through policy and regulatory reforms	•Business regulatory reforms
Limited access to physical infrastructure	PILLAR II: Access to Social and Economic Infrastructure	2.1. Improved physical infrastructure and increased access to services; Transport, Communications, Energy, Water supply and Sanitation	•ICT and energy infrastructure and services improvement
		2.2. Improved social infrastructure and increased access to services; Education, Health care	•Education and health-related infrastructure and services improvement
Weak value chain linkages and financial access	PILLAR III: Enterprise Development	3.1. Value chain development and catalytic investments	•Value chain development in manufacturing sector
		3.2. Micro, small and medium-size enterprises (MSMEs) promotion	• Support for MSMEs' access to finance and financial services

Source: AfDB (2013), edited and modified by the author

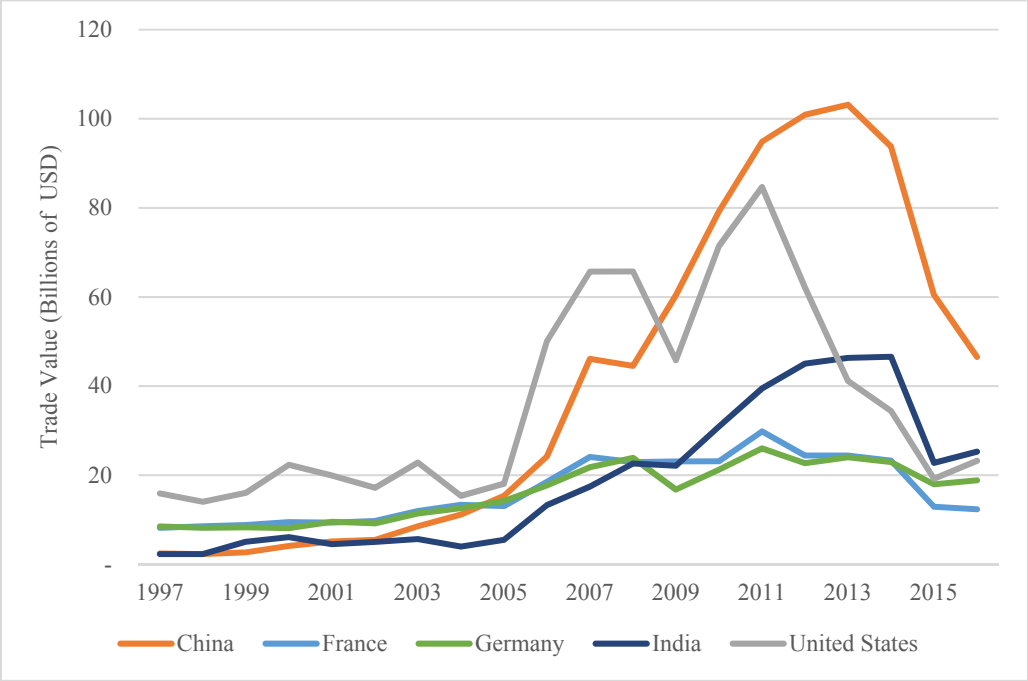
IV. Sino-Africa Economic Engagements

4.1. The China-Africa Trade Pattern

The emergence of China as a major economic power and trading hub for most countries in the world has transformed the shape of the global trading system. SSA, in which a notable shift in trade patterns is observable, is no exception. Until the late-1990s, 90 percent of Africa's trade was with advanced economies, but 20 years later, new partners, including China and India, account for approximately 50 percent of its total trade (Chen and Nord 2017). Additionally, it is noteworthy that there has been a dramatic increase in direct trade between SSA and China in the past two decades.

The stylized facts reveal an interesting story about this changing trade patterns between China and Africa. First, from a negligible trade volume before 2000, bilateral trade increased significantly from $2.5 billion in 1997 to $103 billion in 2013, with some decline in the years since. During this period, the United States was superseded by China as Africa's most important bilateral trading partner (Figure 1).

Figure 1. Sub-Saharan Africa's Merchandise Trade with its Top Five Partners

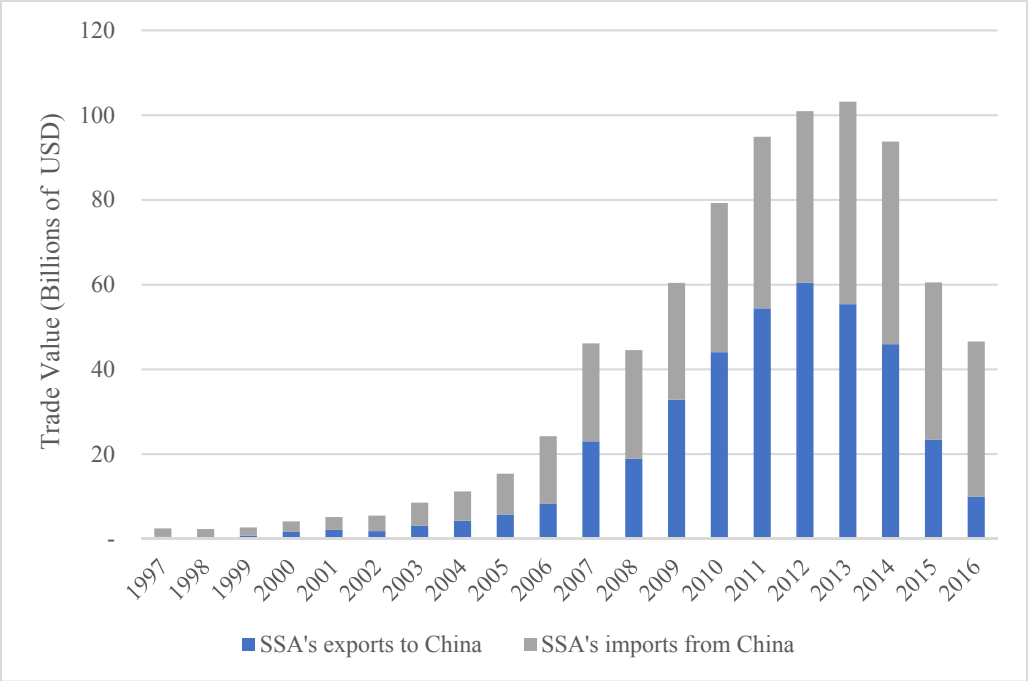


Source: WITS (World Integrated Trade Solution), Accessed November 21, 2017. Data sorted by 2016 trade values.

Second, SSA's exports to China have grown faster than its imports, generating a positive trade balance (Figure 2). Africa's exports to China are heavily concentrated among relatively few countries – Sudan, Angola, Zambia, Nigeria and South Africa, all rich in extractable resources, such as oil, uranium, aluminum, zinc, iron, copper, nickel and gold (Figure 3). This upsurge in Africa's exports to China, concentrated in petroleum and mineral and metal raw materials, can be explained by China's rapid industrialization

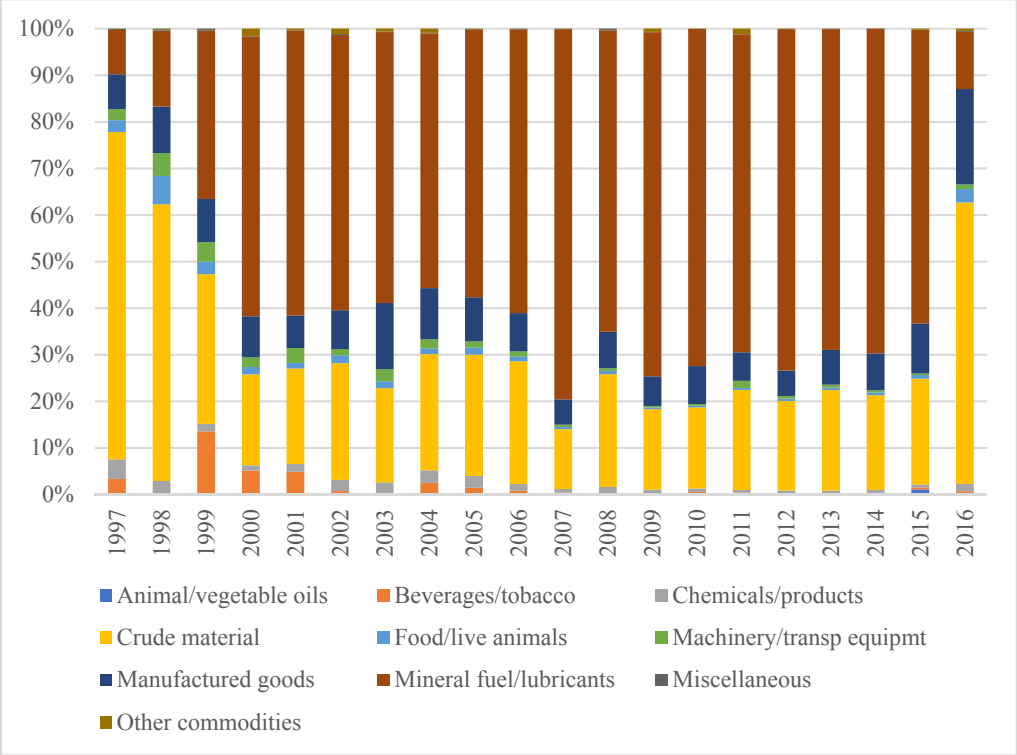
and economic growth, which is often associated with a big appetite for imported inputs (Titiloye Ademola, Bankole and Adewuyi 2009).

Figure 2. Trade between Sub-Saharan Africa and China, 1997 – 2016



Source: WITS (World Integrated Trade Solution), Accessed November 21, 2017.

Figure 3. Product Composition of Sub-Saharan Africa's Exports to China



Source: Author's calculations based on WITS. Accessed November 21, 2017.

Trade with China has been especially important for countries that are rich in natural resources, rather than energy (Figure 4)[5]. The resource-abundant non-oil countries doubled their exports as a share of GDP between 1995 and 2013, and China is the main contributor for this increase. Oil exporters were already exporting 35% of their GDP in 1995, with the United States and Europe as their main markets, but since then

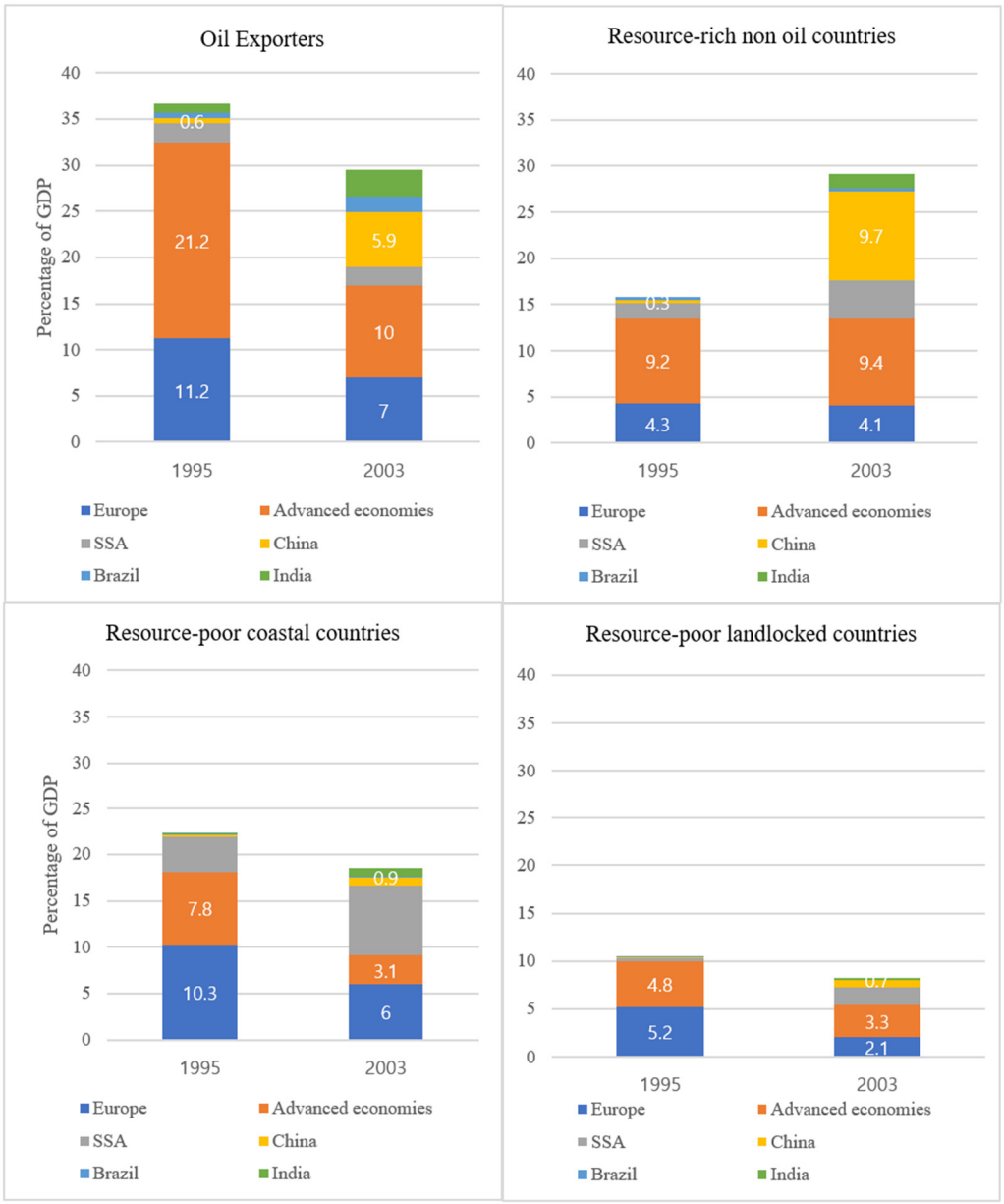
[5] In Figure 5, the countries of Sub-Saharan Africa are categorized into four groups: energy exporters (7 countries), other resource-abundant exporters (15 countries), and resource-poor coastal countries (15 countries), and resource-poor landlocked countries (7 countries).

there has been a shift in the destination of their exports. Exports to advanced economies has declined while it has increased for China.

In the case of resource-poor countries, although the market share of China has slightly increased from 1995 to 2013, China does not play a big role in terms of their exports. The main market of this group is still the advanced economies of Europe and the United States. In addition, the exports of resource-poor countries – in particular, landlocked countries – represent only 10% of their GDP and this shows their clear disadvantage when it comes to international trade.

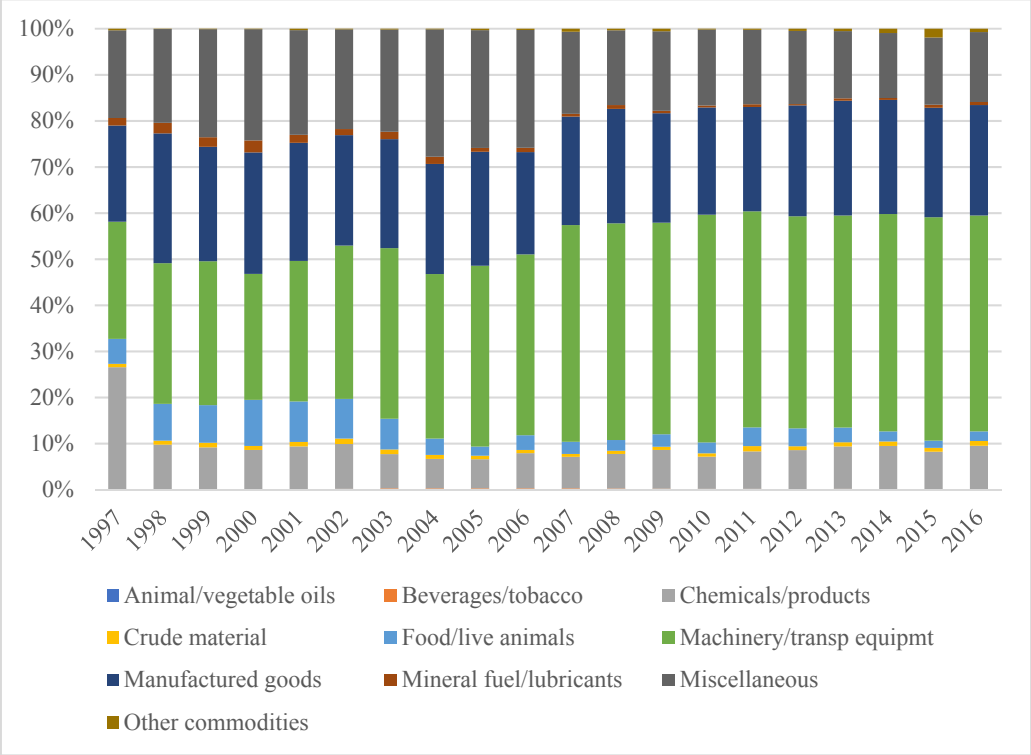
Third, while Africa's export is narrowly focused on primary commodities, Africa's imports from China are more diversified and spread across all African countries. Consumer goods, such as textiles, footwear and consumer electronics, account for the largest share, but also capital goods, such as machinery and transportation equipment, are well represented (Figure 5). The increase in the imports of equipment and machinery is mainly attributed to large Chinese-financed infrastructure projects and an increase in Chinese manufacturing investment in Africa. This pattern of trade closely follows the patterns predicted by comparative advantage theory, with China exporting labor-intensive consumer goods and high-technology products and Africa exporting raw materials and mineral fuels (Zafar 2007).

Figure 4. SSA's Merchandise Exports, Shares by Partner, 1995 and 2013



Source: IMF (2015), Direction of Trade Statistics, Regional Economic Outlook, Chapter 3

Figure 5. Product Composition of Sub-Saharan Africa's Imports from China



Source: Author's calculations based on WITS. Accessed November 21, 2017.

4.2. Chinese FDI in Africa

Issues of China's Overseas Foreign Direct Investment Data

It is not easy to analyze the exact composition and patterns of China's FDI – also known as Overseas Foreign Direct Investment (OFDI) in Chinese official reports – from official data due to issues with quality. The most authoritative data source on

China's OFDI can be obtained from the Ministry of Commerce (MOFCOM) as they have released an annual OFDI report, jointly prepared by MOFCOM, State Administration of Foreign Exchange (SAFE), and the National Bureau of Statistics of China (NBS) since 2003 (Wang, Mao and Guo 2014). However, the MOFCOM data is known to offer a very conservative estimate, especially for private investment, and this is partly due to its registry system.

Before October 2014, any overseas investment project worth more than $100 million was required to receive approval by MOFCOM, so the MOFCOM data only included sanctioned investments (Chen *et al*. 2016). However, many overseas projects do not surpass this threshold and, accordingly, are not included in the dataset. Another issue is that, beginning from October 2014, Chinese companies looking to invest less than $1 billion abroad need to register instead of seeking approval.[6] Nonetheless, many private enterprises that should have registered did not do so due to the process being cumbersome and time-consuming. Furthermore, the MOFCOM only includes private and public investment flows from mainland China and so does not include Chinese owned-FDI passing through offshore finance centers, such as Hong Kong SAR. According to one projection by MOFCOM, the value of the private overseas projects that go unrecorded is about two to three times larger than what the data captures (Shen

[6] However, any overseas investment project larger than $1 billion must be approved by the national Development and Reform Commission (NDRC), China's top economic planner and investment above $2 billion must be approved by the State Council (Chen et al. 2016).

2013).

The issue of data is not limited to Chinese official data, but also to international organizations, such as the IMF and UNCTAD, which report bilateral FDI statistics. Therefore, there are obvious issues around data paucity on China's OFDI, which makes it difficult to examine accurately China's FDI in SSA countries. Nonetheless, even with limited data, it is not impossible to draw general trends and patterns. This paper employs various datasets to illustrate how and why Chinese companies invest in African countries and, in the later section, to assess the impact of China's OFDI on Africa's PSD.

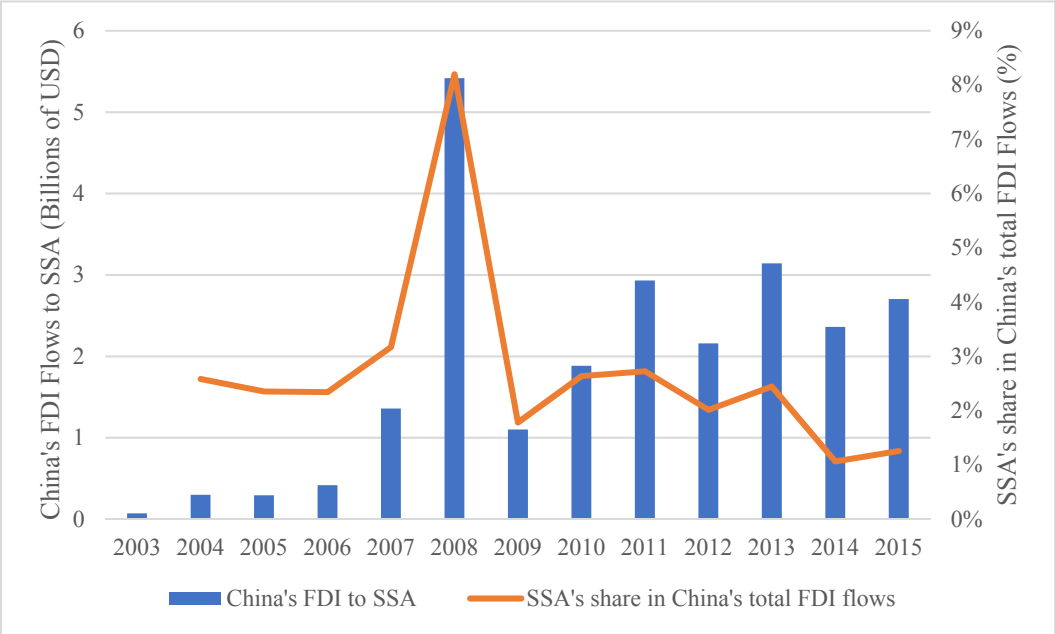
Chinese FDI in Africa

China's FDI annual flows to SSA have substantially increased from a trivial amount of $298 million in early 2000 to $2.7 billion in 2015 (Figure 6), with a peak in 2008 of $5.4 billion.[7] FDI flows have fluctuated throughout the last decade and SSA's share of China's total FDI flows remains below 3%, except for the year 2008. In addition, when compared with the FDI stock of the United States to Africa, China's FDI on the continent remains low. As of 2015, the FDI stock of the United States stands at $65 billion, while that of China is $34.7 billion (Figure 7). On the contrary, albeit the general perception that China is a large investor in Africa, it is actually only a small player,

[7] The sudden increase in FDI flow is attributed to the purchase of 20% of the shares of Standard Bank in South Africa by the Industrial and Commercial Bank of China (ICBC).

accounting for only a modest share of the total flows of foreign investment on the continent (Dollar 2016). However, given that China is a latecomer to Africa, the growth of Chinese FDI to SSA is noteworthy; the average annual growth rate of Chinese FDI to SSA is 32 percent.

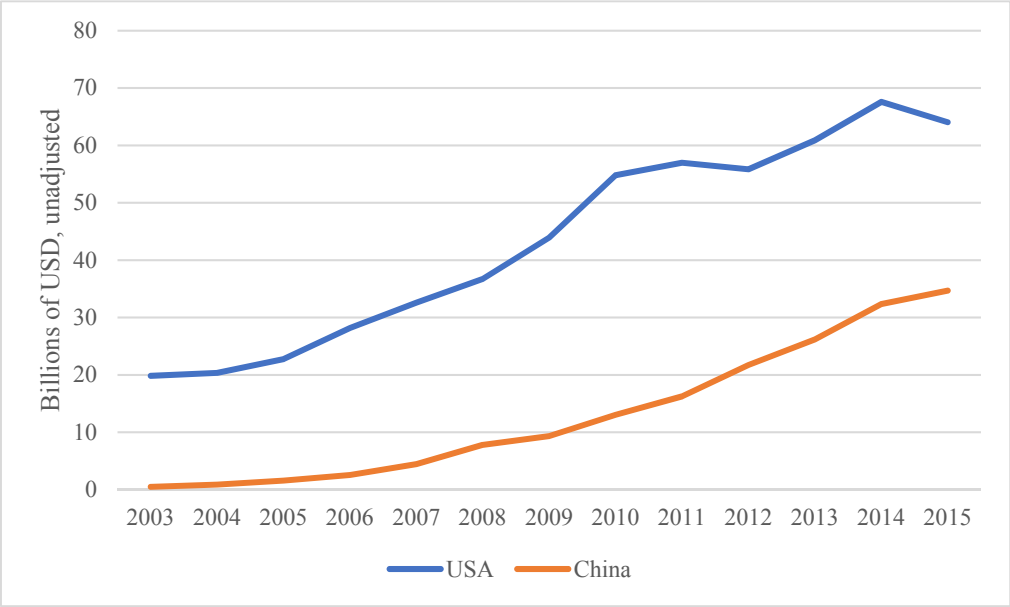
Figure 6. Chinese FDI Flows to Sub-Saharan Africa, 2003 – 2015



Note: China's FDI Flows to SSA is unadjusted.

Source: Johns Hopkins University SAIS China-Africa Research Initiative

Figure 7. Chinese and US FDI Stocks in Sub-Saharan Africa, 2003 – 2015



Note: FDI data for the United States are available only for Africa as a whole rather than SSA specifically.

Source: Johns Hopkins University SAIS China-Africa Research Initiative

The scope of Chinese investment in SSA is extensive, in that it is present in almost all African countries, but to different extents. As shown in Table 2, the top destination for Chinese investment is South Africa, followed by Nigeria, Zambia, Sudan and the Democratic Republic of Congo. Chinese FDI to SSA is positively correlated with natural resource wealth and market size, following the global FDI trends in the continent (Dollar 2016). However, for the case of Ethiopia, even though it is resource-poor country, the large population size must have played a role in attracting the investment.

Table 2. Top 10 Destinations of Chinese FDI in Sub-Saharan Africa

No.	Country	FDI Stock*	Population	IMF Categorization
1	South Africa	34,506.7	55,908,865	Non-oil resource-intensive country
2	Nigeria	14,292.0	185,989,640	Oil exporter
3	Zambia	13,560.3	16,591,390	Non-oil resource-intensive country
4	Sudan	11,126.9	39,578,828	Oil exporter
5	DR Congo	9,525.1	78,736,153	Non-oil resource-intensive country
6	Zimbabwe	6,982.5	16,150,362	Non-oil resource-intensive country
7	Angola	6,504.2	28,813,413	Oil exporter
8	Ethiopia	4,874.8	102,403,196	Resource-poor country
9	Tanzania	4,814.0	55,572,201	Non-oil resource-intensive country
10	Mauritius	4,807.91	1,263,473	Resource-poor country

*Chinese FDI Stock in 49 Sub-Saharan Africa countries from 2003 to 2015 (Value in millions USD).

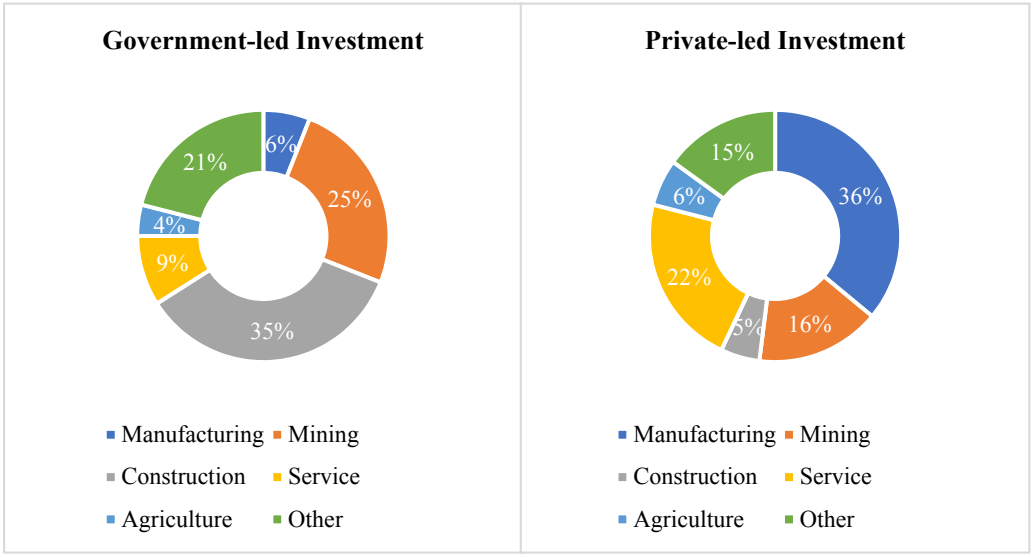
Source: Compiled by the author based on data from Johns Hopkins University SAIS China-Africa Research Initiative, IMF Regional Economic Outlook 2015, World Bank Development Indicators 2016.

According to conventional wisdom, Chinese investment in Africa is led by SOEs, and focuses on the extractive industries and large-scale construction. However, a number of scholars have challenged this stereotypical view of Chinese investment in Africa, suggesting that this is only part of the bigger picture, with Chinese investment in the continent becoming increasingly diversified (Shen 2013).

First, there has been a fast-growing number of Chinese private investors in Africa ever since the mid-2000s. Under the Ministry of Commerce (MOFCOM) system, only two private OFDI projects in Africa were recorded prior to 2000, but the number dramatically jumped and the registered private OFDI projects in Africa reached 55 percent of the total Chinese investment in Africa in 2011 (Shen 2013). Given that the data is from the MOFCOM, the number of private investors in Africa can be thought to be an underestimate. In other words, the share of private investors could be much higher, with McKinsey (2017) recently reporting that around 90 percent of Chinese businesses in Africa are privately owned.

Second, Chinese investment is diverse at the sectoral level and it is necessary to examine government-led and private-led investment projects separately. As shown in Figure 8, there is a significant difference in sector distribution between government- and private-led investments in Africa. Government-led investment is heavily concentrated within construction (35%) and mining (25%), while private-led investment focuses on manufacturing (36%) and services (22%). Although this figure confirms the general perception about Chinese SOEs in Africa, it reveals a new and interesting story about private investors in Africa. In the following section, the topic of Chinese SOEs and private investors in Africa will be explored in more detail.

Figure 8. Chinese FDI in Sub-Saharan Africa by Investor and Sector[8]



Source: Shen (2013)

Trends and Features of Chinese Firms in Africa

The evolution of the engagement by Chinese companies in Africa can be conceptualized as comprising five stages, as shown in Table 3. The first stage was related to aid projects, the second was associated with large state-owned trading companies, and the third involved large SOEs which focused on resource extraction and infrastructure investments. Meanwhile, the expansion of previous investments signaled the fourth stage, and the recent upsurge in Chinese private companies investing in Africa has marked the

[8] A pilot research project sponsored by the World Bank's research department was conducted in 2012. The research utilized the databased containing 1,586 Chinese investment projects active in Sub-Saharan Africa by the end of 2011 and it was provided by the MOFCOM (Shen 2013).

most recent, fifth stage (Gu 2009). In keeping with this timeline, Chinese investment in Africa can be categorized into four different types, as depicted in Table 4.

Table 3. Five Stages of Chinese Companies' Engagement in Africa

Stages	Main features
Stage one: 1949 – 1980s	Small number of Chinese companies, primarily implementing Development Aid Projects of Chinese Government
Stage two: 1980s – Mid-1990s	Large national and provincial level state-owned trading companies, closely linked with diplomatic agenda; few private companies
Stage three: Mid-1990s – 2000	Emergence of large state-owned enterprises (SOEs) mainly focused on resource and infrastructure investments; Growing number of private companies start exploring African market
Stage four: 2000 – 2005	Expansion of large SOEs and private companies; emergence of clustering development strategy
Stage five: 2005 – Present	Enlargement of private companies in diverse sectors and continued expansion of SOEs; the development of clustering industry strategy

Source: Gu (2009)

The predominantly large SOEs can be divided into two types: those owned by the central government and accountable to the State Council, and those accountable to provincial governments (Kaplinsky and Morris 2009). Both of them receive finance from the Exim Bank of China, and mainly invest in the resource and construction sector and infrastructure projects, but their methods of operations differ. SOEs owned by the central

government tend to engage in formal state-to-state agreements, while the provincially-owned companies follow the initiatives of decentralized state administrations (Kaplinsky and Morris 2009).

Table 4. Types of Chinese Investors in Africa

Category	**Predominantly State-owned**	
Accountability	State Council	Provincial Government
Financing	China EXIM Bank	China EXIM Bank
Investment Sector	Resource and construction sector and infrastructure projects	Resource and construction sector and infrastructure projects
Operation	Under formal state-to-state agreements	Initiatives of decentralized state administrations
Category	**Predominantly Private-owned**	
Characteristics	Incorporated in both China and SSA	Incorporated in SSA only
Financing	Largely self-financed	Self-financed
Investment Sector	Manufacturing and services sector	Petty manufacturing and services
Operation	Act independently of the Central State. Maybe supported by provincial governments	Act Independently of the Central State and provincial governments

Source: Derived from Raphael Kaplinsky (2009) and modified by the author

The private sector firms can also be classified into two types: those incorporated both in China and Africa, and those incorporated only in Africa. Both are mostly engaged in the manufacturing and services sectors, and span the spectrum of different size firms, but their financing and operations are slightly different. The former act independently of the Chinese central government and are largely self-financed, with occasional support from a provincial government, whereas the latter act independently both of the central and provincial governments and are wholly self-financed.

Trends and Characteristics of Chinese Private Firms in Africa

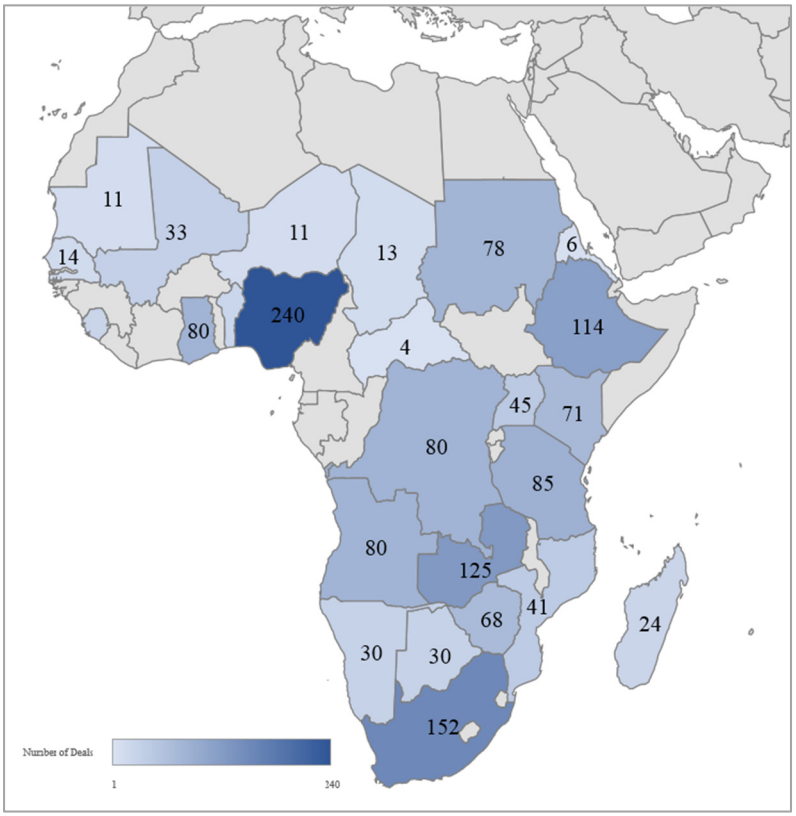
Although it is difficult to derive an accurate number of private Chinese firms operating in Africa, there is a consensus that the presence of Chinese private investors is growing and playing an important role in Africa. The driving force behind this trend can be explained by both push and pull factors. Push factors stem from the intense competition in domestic markets and the excessive domestic production capacity in China (Gu 2009). This environment pushes many investors to establish operations abroad where they experience relatively less competition. In addition, the rising cost of Chinese labor is another critical push factor to transfer the production line abroad. As for the pull factors, the African market attracts investors with its large but less competitive market, and abundant and relatively cheaper labor cost.

According to Chen *et al*. (2016)[9], the presence of Chinese private firms is spread widely across SSA. Figure 8 depicts the geographical distribution of Chinese ODI deals by country. The most notable country is Nigeria which has a large market and is rich in oil resource. The rest of the top five destinations countries for Chinese overseas direct investment are concentrated in Southeast Africa and are mostly resource-abundant countries: South Africa and Zambia are non-oil, resource-rich countries in the south, Ethiopia is a resource-poor country and Tanzania is non-oil, resource-rich country in the east. It is noteworthy that a significant number of Chinese firms are investing in Eastern Africa, which as an area is known to be relatively resource-poor, compared to Southern Africa (Dollar 2016). This tendency is closely associated with the region's relatively more developed infrastructure and its relative proximity to China (Chen *et al*. 2016).

These Chinese companies can be differentiated from Western companies operating in Africa by their strong entrepreneurial character. First, Chinese firms are more adept at dealing with governments and operating in a country with weak domestic institutions. Given that they are familiar with the business climate in developing countries, they can perform better than Western firms in environments with inefficient domestic institutions.

[9] A large majority of the firms in the database are private – the raw data contains 2,005 deals at the firm level, spanning 49 countries on the continent.

Figure 8. Distribution of Chinese ODI Deals in Sub-Saharan Africa, 1998 - 2012



Source: Chen, Dollar and Tang (2016)

Second, Chinese firms are willing to invest in areas in which the profit margins are very low to begin with, and supply chains are weak (Gu 2009). It is a strategic move with the hope that in the long term, they could serve as the leading company in those areas. Lastly, Chinese investors are equipped with experience of doing business in a developing country already, and are consequently less risk averse. This characteristic is

more pronounced in the manufacturing sector in which there are few African companies with the necessary capital and technology to invest, and too few Western firms are ready to take the risk in Africa (Sun, Kassiri and Jayaram 2017). Therefore, Chinese entrepreneurs with the capital, skills and willingness step in.

V. China's Influence on Africa's Private Sector Development

5.1. Investment and Business Climate

A competitive and effective private sector, which promotes economic growth and employment, can be fostered when an environment enabling business and investment is adequately established. In particular, the predictability of regulatory frameworks and efficient domestic factors and product markets provide the opportunities and incentives to create businesses and invest. However, Africa's investment and business climate is restrictive due to inefficient business regulation and a serious shortage of educated and skilled labor. This serves as an obstacle that reduces competitiveness, attracts little domestic or foreign investment and constrains the development of the private sector.

In this section of the paper, a thorough analysis will be offered of how China addresses the issues given above that define the restrictive business environment in Africa, through the lens of the PSD framework (Table 5). The first part discusses China's impact on the development of the local labor market, while the latter focuses on its influence on business regulatory reforms in the continent. This will make it possible to evaluate the overall impact of China on Africa's investment and business climate.

Table 5. Pillar I – Investment and Business Climate

KEY CHALLENGES	PILLARS	TARGET OUTCOMES	OPERATIONAL AREAS
Restrictive business environment	PILLAR I: Investment and Business Climate	1.1. More efficient national and regional factor and product market	•Local labor market development
		1.2. Improved investment and business climate in Regional Member Countries (RMCs) through policy and regulatory reforms	•Business regulatory reforms

Source: AfDB (2013), edited and modified by the author

5.1.1. Local labor market development

One of the typical restrictive features of the African investment and business environment in the eyes of Chinese and other foreign investors is a shortage of skilled labor. It has been noted that there is a deficit in "literacy, numeracy and non-cognitive skills such as punctuality and discipline" among the low-skill workforce, as well as at the level of technicians and high-skilled jobs, such as scientists, doctors, engineers, lawyers, accountants and others (Sajitha 2015). This shortfall in local workers with the essential know-how and skills for technology and knowledge transfers has also been recognized as one of the major hindrances to creating an enabling business environment, and African countries have prioritized investment in developing the skills of the labor

force (AfDB 2013).

Given the importance of an efficient labor market at the national- and regional-level to Africa, China's initial engagements, in which it used its own laborers, professionals and even unskilled workers, attracted enormous criticism from the media, academia and their Western counterparts. This created a general perception that Chinese companies do not contribute to local job creation and the development of labor skills as those locally employed workforce receive little job training. Few studies, besides some recently published, challenge the widely-held assumption that the Chinese do not hire Africans and offer little job training.

The prevailing argument of these recent studies is that Chinese firms do provide the local labor force with jobs and skills, mostly in production, whereas the Chinese workers that are hired typically occupy managerial positions. Due to the lack of official statistics, these findings are usually backed up by various empirical surveys conducted in selective sample countries. Thus, it is not possible to have the exact aggregate numbers of African employees in Chinese companies, but some reports and journals based on different empirical surveys can still provide a general trend. In addition, an economic incentive for workforce localization, the business models of Chinese companies, and government regulation on employing local workers provide qualitative evidence in support of the argument.

Local Employment

At the initial stage of local operations, Chinese firms typically bring Chinese workers to Africa to help with a smooth launch, as they are more familiar with the organization and its ways of working. Also, Chinese technicians who can install and test machinery, and skilled workers, who may educate local workers, are required. Until the mid-1990s, the majority of workers in Chinese companies in Africa were Chinese as wages were reasonable and there were few limitations on imported labor (Chen, Goldstein and Orr 2009). However, since 1995, the price of Chinese domestic labor has increased rapidly and the cost to employ workers abroad has risen even further, due to additional costs, such as expenses for food, accommodation, flights, and visa applications and extensions (Chen *et al.,* 2009). Accordingly, it is now four or five times more expensive to bring a Chinese worker to Africa than it is to hire a local worker. For reasons of cost efficiency, Chinese companies have adjusted the ratio of Chinese workers to African workers (Xiaoyang 2016).

Additionally, the nature of the Chinese businesses active in Africa is closely related with the increasing proportion of African workers. The rise of labor costs in China has motivated the relocation of Chinese companies to other developing countries, particularly low-value manufacturing firms, and Africa has increasingly attracted Chinese investors with its abundant and cheap labor (Lopes 2015). Consequently,

Chinese investment in the continent is concentrated in mining, manufacturing and construction, which are typically labor-intensive sectors. In addition, Chinese firms work in a more labor-intensive manner than their Western competitors from Europe and the Americas in these sectors (Xiaoyang 2016). Hence, there is a need for a large number of workers, including both Chinese and Africans. Market-driven and cost-driven Chinese companies strategically utilize this market condition. While gaining a competitive edge by hiring relatively cheaper local workers on the production side, they fill managerial positions with their own people (Gu 2009).

Another important factor determining the workforce localization by Chinese companies is the governmental regulation of the employment local workers. In other words, it depends on the policies of the African governments, who have the power and leverage to mandate the proportion of local staff (Asongu and Aminkeng 2013). For example, Angola has a labor policy of "Angolanisation", whereby foreign companies must have a workforce composed of at least 70% Angolans, although exceptions may be made for certain urgent public projects (Xiaoyang 2016). In addition, the Ethiopian government imposed limits on the employment of foreign staff through its 2002 Investment Proclamation. An investor can hire qualified expatriate experts necessary to operations, but is responsible for providing a schedule for the replacement of foreign employees by Ethiopian employees by arranging the necessary training (U.S. Department of State 2017). However, managerial positions are exempt from this

regulation.

As noted earlier, data supporting the general trend that Chinese enterprises are hiring a greater number of locals is fragmented. For example, Chen *et al.,* (2009) conducted a survey of 35 major Chinese construction firms which had been in operation in Africa for more than six years and found that, on average, Chinese companies in the construction sector employed similar numbers of Chinese and local workers, while only 10 percent of managerial positions were held by locals. Hong Kong-based academics, Barry Sautman and Yan Hairong (2015) surveyed 400 Chinese companies operating in over 40 African countries between 2012 and 2014. They found that while management and senior technical positions tended to be held by Chinese employees, more than 80 percent of workers were local. Some companies like the Kiluwa Mining Group and China Africa Agricultural Investment Co. in Tanzania, Akosombo Textiles in Ghana, and Jinchuan Group in Zambia had localized as much as 99 percent of their workforces (Sautmand and Hairong 2015).

Moreover, the World Bank (2012) surveyed 69 large- and medium-sized Chinese firms in Ethiopia[10] and found that the relatively small number of Chinese companies have a significant impact on job creation in Ethiopia, even though few locals

[10] Originally, questionnaires were sent to 86 firms, but 69 companies were kept in the final sample. The Chinese firms in the sample were overwhelmingly privately owned and most were in the manufacturing sector, with the rest uniformly distributed across the construction, transportation and service sectors (World Bank, 2012).

occupy skilled and professional positions. Chinese firms accounted for 18,368 full-time jobs – equivalent to 6.5 percent of the total 282,306 full-time permanent jobs in the formal non-agricultural sector in Ethiopia. 86 percent of these full-time positions are held by Ethiopians (Sajitha 2015). Although the available data are fragmented, as different studies are based on different time frames, sectors and countries, there is an unambiguous finding that Chinese firms are significant employers in Africa, with the exception of managerial and more professional positions.

A current McKinsey report based on field surveys of more than 1,000 Chinese companies in eight African countries[11] has shown this trend more clearly, as in Table 6. On average, Chinese-owned businesses localized their workforce by up to 89 percent. Moreover, in comparing private and public enterprises, state-owned companies hired 81 percent local workers, while privately-owned firms employed 92 percent. By sector, manufacturing firms hired local employees to the greatest extent, at 95 percent. Companies in the construction and real estate, and services sectors employed 85 percent of their workforce locally and, in trade, the local workforce stood at 82 percent.

[11] McKinsey surveyed more than 1,000 Chinese firms in eight African countries; Angola, Ethiopia, Ivory Coast, South Africa, Kenya (November 2016 – March 2017)

Table 6. Share of Local Employees in Chinese Firms

% of local employees in Chinese firms						
Average	By Ownership		By Sector			
	State-owned	Private	Construction and real estate	Manufacturing	Services	Trade
89	81	92	85	95	85	82

Source: McKinsey field survey of Chinese firms in eight African countries (November 2016 – 2017)

Skills Development

However, the mere hiring of more local people does not necessarily result in a more efficient labor market. The local workforce could be restricted to unskilled and casual positions, and so does not have the opportunity to acquire professional skills. Given that Chinese companies have often been accused of not contributing to local skills development, it is worthwhile examining whether Chinese companies invest in skills training and, if so, how it is being done. As noted, Chinese companies have an urgent and serious need for skilled African laborers to replace Chinese expatriates so that they can save costs and plan for the long-term expansion of their businesses. According to the McKinsey report referred to above, approximately two-thirds of Chinese employers provide skills training to their employees and 53 percent and 50 percent of firms engaged in construction and manufacturing, respectively, offer apprenticeship training (Sun *et al*. 2017).

Table 7. Training Programs offered by Chinese Firms (% of firms)

Category	Average	By Ownership	
		State-owned	Private
Professional training	21	27	20
Apprenticeship only	43	35	44
No training	36	38	36
Category	**By Sector**			
	Construction and real estate	**Manufacturing**	**Services**	**Trade**
Professional training	19	23	23	14
Apprenticeship only	53	50	37	33
No training	28	27	40	53

Note: numbers may not sum due to rounding

Source: McKinsey (2017)

According to Table 7, the most typical form is on-site training as it is a cost-efficient and practical method. Skillful Chinese workers teach new African workers through hands-on coaching, and in the process of learning-by-doing, the new workers gradually upgrade their skills in daily operation and acquire tacit knowledge (Wolf, 2016). Although driven by pragmatic reasons, a mutually beneficial ground is being made as Chinese firms can enjoy the increased productivity of local workers at a cheaper price, while local people can improve their work skills, which could help them change jobs or open their own businesses in the future.

Moreover, micro-level evidence illustrates well how there is an increasing trend

for Chinese firms to invest in local skills development. For example, a Chinese telecommunications equipment and services company, Huawei Technologies, has established seven training centers across the continent.[12] Given that over 60 percent of its 5,800 employees on the African team are local (as of July 2016), Huawei has a long-term goal of localizing its staff through a proper training program. There are several reasons for this.

First, there is a strong economic incentive to hire locally as Huawei can reduce its outgoings on salaries and benefits. Second, the engagement of local talent encourages more appropriate responses in the local market and this can help Huawei to respond more swiftly to local customers' needs and demands. Third, African countries such as Angola, Ethiopia, Ghana, Kenya, and Nigeria pressure foreign firms to train and hire locally through their regulations, requiring foreign companies to localize the workforce and provide more job training opportunities for their workers. Lastly, according to its management, the investment in local training is part of a marketing strategy, aimed at gaining acceptance from local consumers and potential business partners, rather than for human capital return (Tsui 2016).

One of the training initiatives of Huawei in Africa is the establishment of training centers for their employees, engineers from local telecoms carriers and

[12] Huawei Technologies training centers are established in Egypt, Kenya, Angola, Democratic Republic of the Congo, Morocco, Nigeria, and South Africa.

customers. The center is run by full-time professional instructors and engineers and the training focuses on telecommunications engineering skills, as well as project management and “soft skills”, such as communication and teamwork (Tsui 2016). In addition, Huawei offers internship programs and ICT educational programs for students in cooperation with local universities, which opens the door for full-time employment within the company and its partner companies. For instance, Huawei collaborates with the African University of Science and Technology (AUST) in Abuja, Nigeria. Computer science students from AUST have access to the Huawei Abuja Training Center and courses are offered with a curriculum developed by Huawei engineers in conjunction with the AUST Computer Science faculty (Tsui 2016).

Whether the current employment practices of Chinese firms are by virtue of economic interest or other pragmatic reasons, a spillover effect on employment generation and skills development has been observed in the continent. It is a positive sign that Chinese companies are creating a market for jobs and skills transfer in SSA. In other words, the presence of Chinese firms is positively influencing the local labor market development in the continent.

5.1.2. Business regulatory reforms

An efficient and transparent business regulatory environment contribute to the creation of a business climate that attracts greater levels of investment. A fundamental premise of business regulation is that economic activities require rules that allow the enforcement of contracts and the assurance of property rights, increasing predictability in transactions and reducing the costs of resolving disputes (Haidar 2012). Well-designed business regulations simplify business entry and investment licensing, tax payment and property registration, and this provides greater incentives for the private sector to invest, create jobs, and comply with the rules. Economies with complicated systems of regulation usually have higher levels of corruption and informal economic activities (Djankov et al. 2002). Thus, in the absence of quality business regulation and strong institutions with powers of enforcement, the cultivation of a private sector is unlikely.

Despite the urgent need for regulatory reform, SSA remains the home of some of the least business-friendly economies in the world (World Bank 2017). According to the *2010 Doing Business*[13] report, published by the World Bank Group, 20 of the 25 lowest-ranking countries for the ease of doing business can be found in SSA. Similarly,

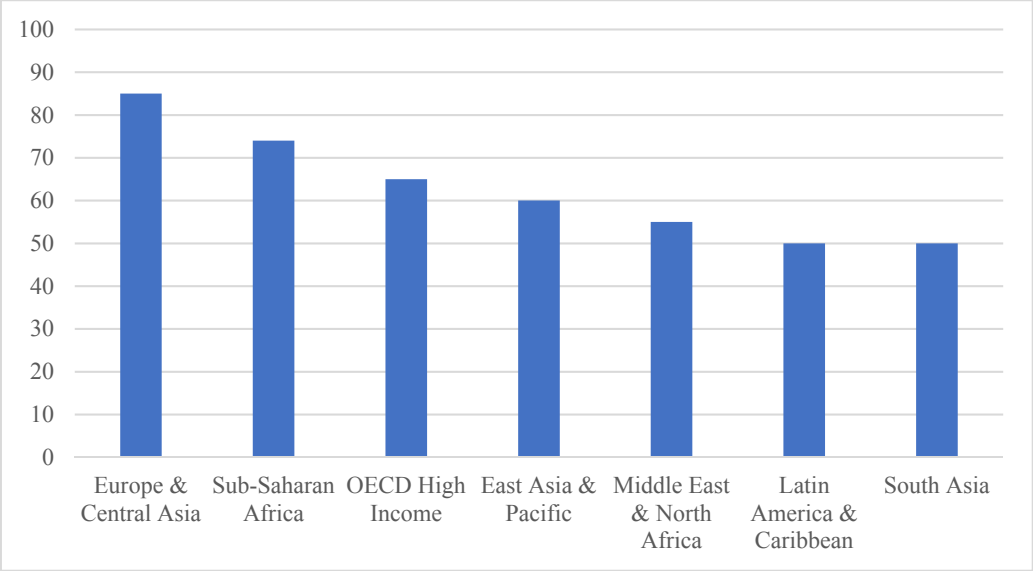
[13] Since 2004, the World Bank has been publishing the annual Doing Business reports to investigate the regulations that enhance business activity and those that constrain it. The data was collected on five topics at the beginning and in recent years, 11 areas of life of a business are measured. Ten of these areas are included in the ranking on the ease of doing business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. Doing Business also measures labor market regulation, which is not included in the ranking. The report covers around 190 economies in the world (World Bank 2017).

the 2011 report found that the average rank for the same measure for African countries was 137 out of 183 economies, compared with 72 in Eastern Europe and Central Asia, 87 for East Asia and the Pacific and 96 in Latin America and the Caribbean (AfDB 2011).

Nonetheless, the issue has not gone overlooked. Over the recent years, African countries have adopted a wide range of business regulatory reforms to tackle the problem. The efforts have led into some successful results that SSA had the highest number of business regulatory reforms globally in 2013/2014 – 75 of the 230 worldwide (World Bank 2014). In addition, in the same year, SSA had the second largest share of economies implementing at least one regulatory reform, with 74 percent doing so (Figure 9). In addition, the region includes five of the top 10 improving countries in 2013/2014: Benin, the Democratic Republic of Congo, Côte d'Ivoire, Senegal and Togo (World Bank 2014).

This upward move has been prompted by various causes, but one plausible explanation is greater competition between African countries to attract foreign investment. According to a number of studies, a larger inflow of FDI is closely associated with the economies' better performance on Doing Business indicators (World Bank 2013; Morris and Aziz 2011; Bayraktar 2013). In other words, countries with an improved regulatory environment are more likely to attract FDI. Hence, African governments actively execute reforms that improve the quality of the business regulatory environment.

Figure 9. Share of Economies with at Least One Reform, making it easier to do business, 2013 – 2014



Source: World Bank (2015), Doing Business Report

Given that China's investment in SSA has been increasing rapidly in recent years, it is possible to draw a connection – that is, that Chinese investment indirectly motivates African countries to reform their business regulations and practices, as an improved regulatory environment can attract more Chinese, or other foreign, investors. However, in the course of the research, it was not possible to find any qualitative or quantitative evidence to show China's direct influence on Africa's business regulatory reforms. One study looked at the actions taken by Chinese public or private companies to request regulation adjustment by their African host, and the responses and any

consequences, but no sign of an active interaction was found.

Conclusion

China's impact on Africa's investment and business climate has been analyzed with a particular spotlight on local labor market development and business regulatory reforms. As mentioned, despite a possible relation between increased Chinese investment and African countries' motivation for business regulatory reforms, no quantitative or qualitative evidence has been found to support this assumption. On the other hand, although local employment and skills training by Chinese companies are usually driven by pragmatic reasons, this can be mutually beneficial as Chinese firms can enjoy the increased productivity of local workers, while local people have the opportunity to have jobs and improve their work skills, which could help them to change jobs or to open their own business in the future. Therefore, the current employment practices of Chinese firms are positively influencing the local labor market development. In other words, it is partly addressing one of the restrictive features of Africa's investment and business climate.

5.2. Social and Economic Infrastructure

For smooth business operation, sufficient social and economic infrastructure – including transport, communications, energy, water, education and health-related infrastructure – is a must. However, SSA's private sector is constrained largely due to a lack of efficient physical infrastructure and services, and this reduces the productivity and efficiency of business activities. Given the importance and urgency of tackling this major impediment to the development of the private sector, various attempts have been made by African countries, and international and bilateral donor countries. Investment in the infrastructure sector, *inter alia*, by Chinese companies is outstanding.

In this section of the paper, an in-depth analysis will be made of how China addresses the issue of limited access to physical infrastructure in Africa through the PSD framework (Table 8). The first part examines China's impact on ICT and energy infrastructure and services improvement and the latter part concentrates on its influence on education and health-related infrastructure and services improvement in the continent. This evaluation will allow for an overall conclusion on the impact of China on Africa's social and economic infrastructure.

Table 8. Pillar II – Limited Access to Physical Infrastructure

KEY CHALLENGES	PILLARS	TARGET OUTCOMES	OPERATIONAL AREAS
Limited access to physical infrastructure	PILLAR II: Access to Social and Economic Infrastructure	2.1. Improved physical infrastructure and increased access to services; Transport, Communications, Energy, Water supply and Sanitation	•ICT and energy infrastructure and services improvement
		2.2. Improved social infrastructure and increased access to services; Education, Health care	•Education and Health-related infrastructure and services improvement

Source: AfDB (2013), edited and modified by the author

5.2.1. ICT and energy infrastructure improvement

One of the major constraints to the development of Africa's private sector, and its socio-economic development and structural transformation, is the lack of physical infrastructure. Poor road, railway and harbor infrastructure adds to the costs of commodities trading among African countries by up to 30 to 40 percent, resulting in a low-level of intra-African trade and trade with the rest of the world (AfDB 2013). Unreliable electricity and water supplies, and inadequate ICT infrastructure impose high cots on industries, and cuts firm productivity by as much as 40 percent (Escribano Guasch and Pena 2008).

Table 9. Infrastructure Deficit in Sub-Saharan Africa

Normalized units	Sub-Saharan Africa low-income countries	Other low-income countries
Roads		
Paved-road density	31	134
Total road density	137	211
Electricity		
Generation capacity	37	326
Electricity coverage	16	41
Telecommunications		
Main-line density	10	78
Mobile density	55	76
Internet density	2	3
Water and sanitation		
Improved water	60	72
Improved sanitation	34	51

Note: Road density is in kilometers per kilometer squared; telephone density is in lines per thousand population; generation capacity is in megawatts per million population; electricity, water and sanitation coverage are in percentage of population.

Source: Derived from Yepes *et al.* (2008) and reproduced in Foster and Briceño-Garmendia (2009).

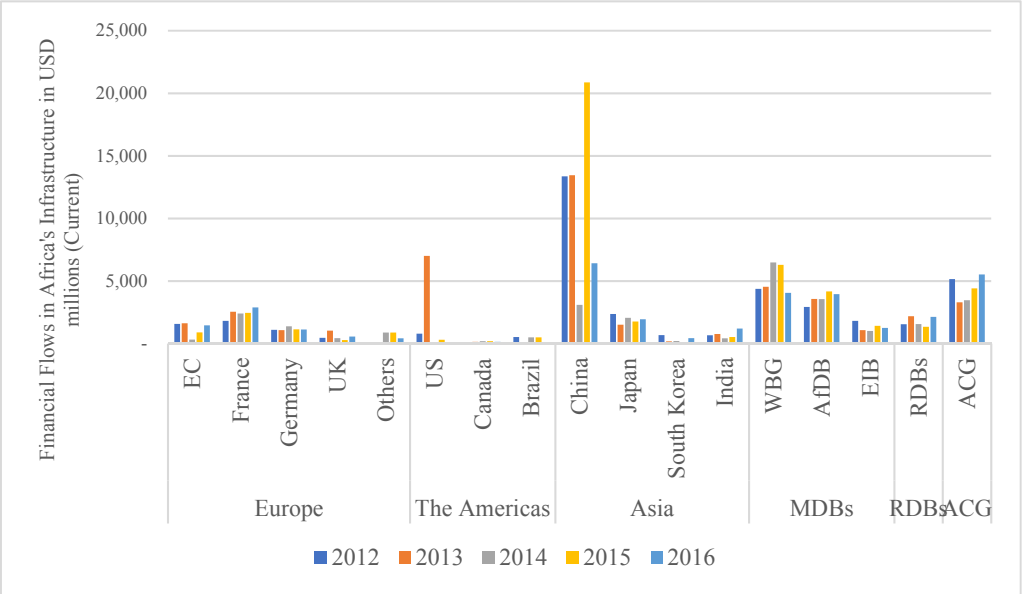
These infrastructure deficiencies are present across all of the main sectors – roads, ports, telecommunications, power, water and sanitation – and they are most pronounced in low-income African countries. Table 9. illustrates how low-income African countries lag behind relative to other low-income countries (Yepes, Pierce and Foster 2008). The disparity is particularly large in the cases of paved roads, telephone

mainlines and power generation capacity.

The position of Africa can also be explained by the financing flows in Africa's infrastructure sector. To fill the huge infrastructure gap, multilateral, regional and bilateral donors are heavily investing in Africa's infrastructure sector. Overall financing for infrastructure in Africa from external sources tripled between 2004 and 2012 (Gutman, Sy and Chattopadhyay 2015). More recent financing trends of multilateral, regional and bilateral donors are illustrated in Figure 10. and unsurprisingly, China is positioning itself as the single largest source of finance to Africa's infrastructure sector (ICA 2016).

However, China's increasing role as Africa's infrastructure development partner is not very well received. The most prevalent criticism is that China's presence in Africa's infrastructure sector is focused on facilitating the extraction and export of natural resources to China. This mercantilist attitude towards Africa leads to the direction of funding towards resource-endowed countries. In fact, the 2009 World Bank Report stated that the largest support for the infrastructure sector was provided to resource-rich countries, while recognizing that 35 counties received support from China (Foster and Briceño-Garmendia, 2009: 78).

Figure 10. Financing Flows in Africa's Infrastructure, 2012 – 2016[14]



Note: For the year of 2015 and 2016, EU-AITF financing was included in EC, Non-ICA financing was included in others and IFC financing was included in WBG.

Source: Author's calculations based on *Infrastructure Financing Trends in Africa 2012, 2013, 2014, 2015, 2016*

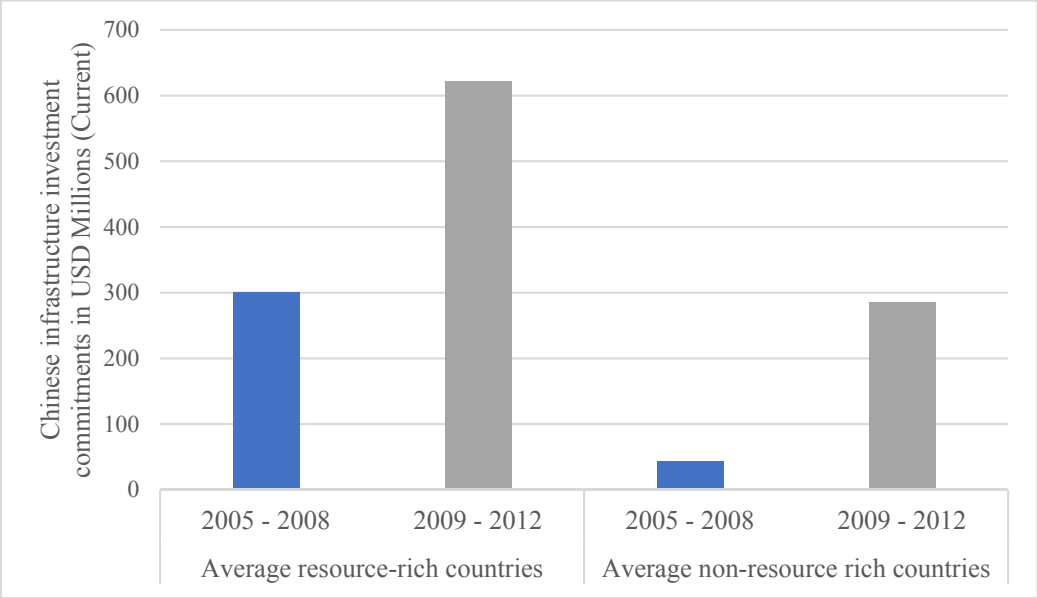
Chinese involvement in African infrastructure projects, however, has expanded since 2010. While financing for resource-rich countries is still double the average amount for non-resource rich countries, the gap has slightly decreased over time (Gutman *et al*. 2015). The aggregate average of Chinese financing to resource-rich

[14] The likely financing flows from external sources to the continent does not speak for a full or exact amount of funding. It only demonstrates the total amount of financing verifiably committed by donors. For instance, due to problem of double counting, the data does not include funding from African countries (ICA 2013).

countries doubled from $300 million to over $622 million between 2005-2008 and 2009-2012. Nonetheless, over the same period, there was an upsurge in Chinese commitments to the non-resource-rich countries from $43 million to $285 million as shown in Figure 11. (Gutman *et al*. 2015). This figure suggests a shift in emphasis. It is true that China has a special interest in Africa's natural resources, but no evidence has been found to prove that Chinese financing is disproportionately focused on making easier the extraction and export of commodities for its own economic growth (Gutman *et al*. 2015). The primary motivation seems to be commercial – that is, to capitalize on market opportunities in Africa.

In addition, many media report and some scholarly works comment that infrastructure construction projects undertaken by Chinese are carried out at low cost, at the expense of quality. Two infrastructure projects in Zambia and Angola have often been cited. The Chinese-built hospital in Luanda, Angola's capital, was opened with great hopes for better health, but after four years, serious cracks in the walls appeared and it soon closed (Economist 2011). Moreover, a section of the Chinese-built road from Lusaka, the capital of Zambia, to Chirundu (130km to the south-east), was swept away by rainfall and falling rocks from nearby mountains (Economist 2011). These troubled projects have received significant public attention and shaped a general perception that Chinese-built infrastructure is inferior in terms of quality.

Figure 11. Chinese Infrastructure Investment Commitments to Resource-Rich versus Non-Resource Rich Sub-Saharan African Countries, 2005 – 2012



Source: Gutman *et al*. 2015, using AidData databases

However, there is a growing belief that the quality of Chinese construction is improving and heading towards international standards. Under the World Bank International Competitive Bidding (ICB), China's share of civil works contract grew from less than 10% in 1995 to over 30% in 2013 and they were the top civil works suppliers to Africa in 2013 (Gutman and Zhang 2015). Although the tied support for bilateral infrastructure projects helped Chinese firms gain a competitive edge on the continent, the fact that Chinese contractors are winning a greater number of fair competitive biddings from the World Bank, help to support the argument. In addition,

Farell (2016) conducted a comparative analysis between Chinese firms and OECD country firms on World Bank-funded transportation projects completed between 2000 and 2007.[15] The result indicated that there was no statistically significant difference between the quality of work performed by Chinese and OECD country firms, heating up this contentious debate.

Nonetheless, a general negative perception about Chinese infrastructure projects is not unsubstantiated. It is true that Chinese infrastructure investment has been concentrated on resource-endowed countries and the quality control of the construction works has not been consistent. Yet, it is noteworthy that Chinese financing for Africa's infrastructure has diversified and efforts not to compromise the quality of infrastructure is being made. The following cases will shed light on China's contribution to Africa's improved physical infrastructure and increased access to services, with a special focus on the ICT and energy sectors.

[15] The examination was primarily based on information provided in the Implementation Completion and Results Report (ICR) for each project (Farell 2016).

Case Study – ICT Sector

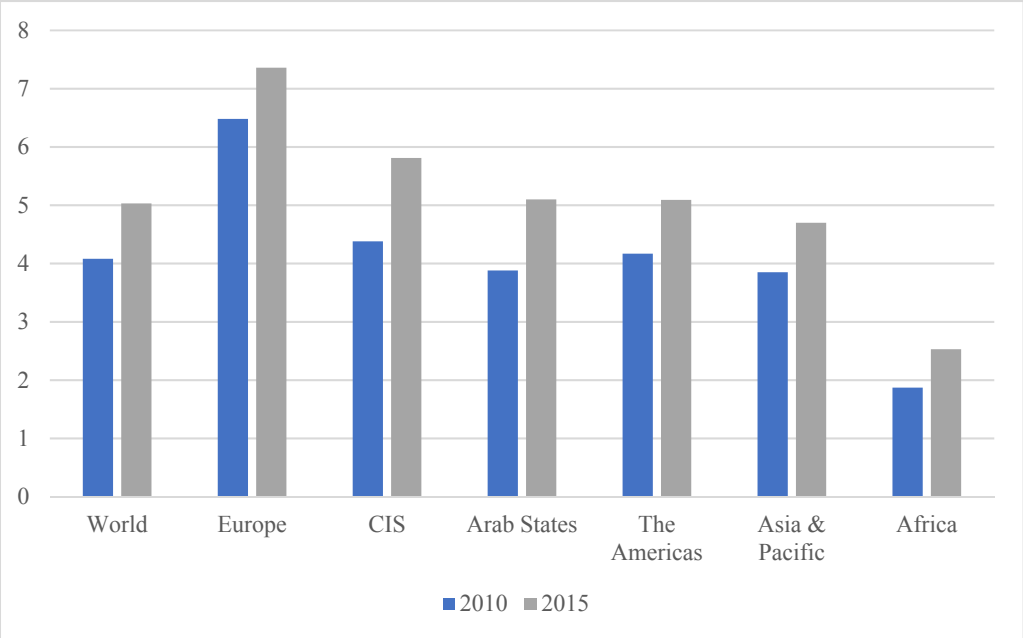
Information and communication technology (ICT) has the potential to transform both the private and public sectors in Africa. With greater access to information and markets, entrepreneurship, innovation and economic growth can be stimulated (ITU 2015). Although a number of African countries have made progress in terms of access to ICT services, the continent as a whole lags behind the rest of the world. For instance, the ITU ICT Development Index (IDI)[16] claims that Africa has improved far more slowly in comparison with other regions, as shown in Figure 12. According to the ITU, the provision of access to ICT was a major challenge (ITU 2015).

In this situation, Chinese firms engage in substantive ICT infrastructure development and improved access to its services in the continent. In many cases, a new product or service, of reasonable quality, is tailored to the local market and is launched at an affordable price. This delivery of so-called "bottom of the billion" products and services enable the continent to be better connected to the globe. For instance, Tecno Mobile, a Chinese mobile phone manufacturer entered the SSA market in 2006. Tecno humbly started out by introducing relatively simple phones, but very quickly scaled up to affordable smartphones with advanced technology that would retail for less than $50

[16] ITU has published The ICT Development Index (IDI) values and ranking of countries on an annual basis since 2009. It is a composite index that combines 11 indicators into one benchmark measure. It is used to monitor and compare developments in ICT between countries and over time.

(Jidenma 2013).

Figure 12. ICT Development Index by Region, 2010 and 2015



Source: ITU 2015, Measuring the Information Society Report

This company took the unusual route of bypassing the Chinese market to build its sales in SSA, adapting low-cost phones to local tastes. For example, in 2007, they released the first dual-SIM phone to address the issue of people carrying around several mobile phones due to poor Telecoms network infrastructures in the continent (Nsehe 2017). In addition, the phones include camera software adapted to better capture darker

skin tones, and in Ethiopia, it introduced a keyboard in Amharic, Ethiopia's official language, for the first time as the major cell phone brand (Su *et al.* 2017).[17] As a result of this localization strategy, Tecno is enjoying success in Africa, dominating major African markets such as Nigeria, Ghana, Kenya, Ethiopia, Tanzania and Cameroon.

Another example is Huawei's 4G telecommunications technology that has significantly improved service levels in Kenya. In 2015, Huawei's Mobile Money Platform,[18] which was built to deliver basic banking transactions in developing countries, began supporting the M-PESA service for Safaricom, Kenya-based mobile telecommunication operator. The M-PESA infrastructure, launched in 2007 provides cellphone-based financial services and payments to the unbanked citizens in East Africa and beyond. It has been recognized as an innovation that has used technology to leapfrog traditional financial services models (Su *et al.* 2017). However, its occasional shutdowns due to the strain of an excessive number of transactions on the platform meant that improvements were needed, and Safaricom partnered with Huawei to deliver a more sophisticated service, using Huawei's technology.

In a single day, 12.8 million of its Kenyan subscribers were migrated across to Huawei's platform and this largely improved functionality for users, doubling the

[17] Tecno has assembly plant in Ethiopia and plans to build another plant in Nigeria.

[18] The platform supports basic banking transactions including: Point-to-point (P2P) transfers, cash in, cash out transactions, savings and loan integration, bill payments, ATM integration, international money transfers (Huawei official website).

number of transactions possible per second and speeding up the transaction processes. In addition, this platform works on both smartphones and featured phones, so it could be widely used in the continent if the service is expanded. This improved and inclusive cell-phone based financial service has both personal and social impacts and supports entrepreneurial businesses.[19]

Chinese firms produce products or develop niche technologies which are particularly appropriate to serve the local demand in Africa. These so-called "below the radar" investors are the "quintessential carriers of the pro-poor innovation"[20], serving the needs of poor (Vera-Cruz et al. 2013). In other words, Chinese firms have great potential to induce innovation by delivering locally tailored ICT products and services at a reasonable price and quality in Africa. Improved ICT infrastructure can play an essential role in developing not only the private sector, but also the continent as a whole.

[19] This information on subscribers' migration to Huawei's platform is derived from official website of Huawei.

[20] "Pro-poor innovation" that serves the needs of the poor is currently being discussed across diverse spheres in terms of various concepts such as "appropriate technology" (Schumacher, 1973, etc), "grass roots innovation" (Gupta, 2010), "Bottom/Base of Pyramid (BOP)" (Prahalad, 2004; Hart, 2005), "inclusive business" (UNDP, 2008) and "below the radar innovation" (Kaplinksy et al. 2009, Kaplinsky, 2011). Under different names, all of the concepts indicate that technology and innovation has a crucial role to play in poverty alleviation.

Case Study – Energy Sector

A reliable power supply has a significant impact on the productivity of individuals, businesses, and governments. However, many African countries still suffer from a low rate of electrification, and this represents a critical obstacle to the growth of its industries and private sector. Chinese firms take quite an active role in Africa's power sector, both in terms of magnitude and their impact on new electricity capacity additions. In terms of magnitude, between 2010 and 2020, Chinese companies acquired more than 200 power projects in at least 37 countries out of the 54 that comprise SSA.

As shown in Table 10, approximately 150 projects involve power plants, and transmission and distribution (T&D) lines, while the rest relate to wider electricity systems, such as street lighting and the supply of electrical equipment (OECD/IEA 2016). In addition, the share of Chinese-contracted greenfield projects is sizable compared with that of other foreign contractors, contributing significantly to the region's power generation. Between 2010 and 2015, China constructed about one-quarter of the greenfield power plants in SSA, the largest share among foreign contractors in that period of time (OECD/IEA 2016).

Table 10. Overview of Chinese Power Projects in Sub-Saharan Africa, 2010 – 2020

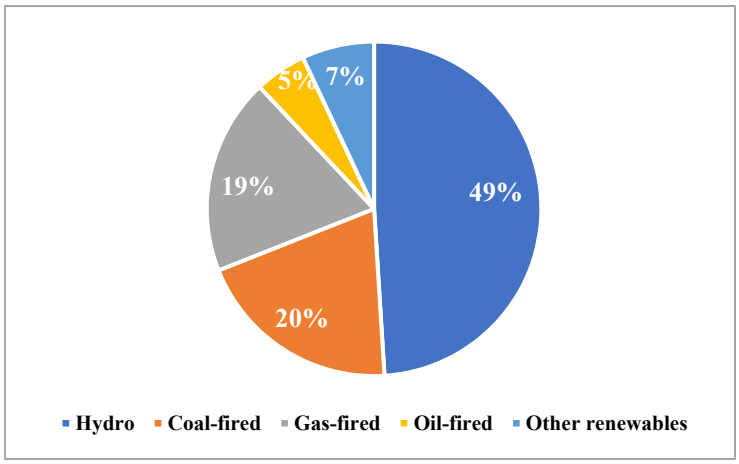
Region	Generation Capacity			T&D Capacity		
	Completed projects	Under construction	Planned and financed	Completed projects	Under construction	Planned and financed
East Africa	14	9	5	10	10	1
West Africa	17	4	2	6	2	2
Central Africa	8	5	2	5	1	2
Southern Africa	15	7	8	4	5	1
Total	54	25	17	25	18	6
	96			49		

Source: OECD/IEA (2016), Boosting the Power Sector for Sub-Saharan Africa

In terms of impact, Chinese contractors constructed 7GW of generation capacity additions, representing 30% of the total additions in SSA between 2010 and 2015 (OECD/IEA 2016). These Chinese projects cover almost the entire capacity mix, with hydropower dominating, and renewable sources accounting for 56% of the total capacity addition generated by Chinese projects (Figure 13). Furthermore, according to an AidData working paper, "a 10 percent increase in Chinese development finance corresponds to an 0.6 - 1.1 percent increase in per capita nighttime light output" (Dreher et al. 2016). These figures clearly indicate that the continent is being illuminated by

Chinese investment in power sector.

Figure 13. Chinese-Added Generation Capacity Mix in SSA, 2010 – 2020



Source: OECD/IEA (2016), Boosting the Power Sector for Sub-Saharan Africa

5.2.2. Education and health-related infrastructure improvement

The foundations of human development are education and health. Sickness and the lack of a proper education impede productive activities in daily life and business as it is difficult to take care of one's family or hold down a job if one is sick or does not have appropriate knowledge or skills for work. Despite the gradual improvement, this issue is significant in many developing countries, largely due to deficiencies in healthcare and the delivery of basic education. In other words, limited access to social infrastructure such as education and health services constrains the development of the

private sector as much as other institutional challenges and the lack of economic infrastructure.

According to UNESCO, SSA has the highest rates of education exclusion of all regions. Between the ages of 6 and 11, over one-fifth of children are out of school and one-third of teenagers between the ages of 12 and 14 are not in school (UNESCO 2017a). In addition, almost 60% of young people between the ages of 15 and 17 are out of school. The situation is not any better in the health sector. Given that provision of basic healthcare lags far behind other countries, people in SSA face the worst health conditions in the world. According to the World Bank, with less than 1 percent of global health expenditure and only 3 percent of the world's health workers, the region has the highest maternal mortality rate, accounts for almost half of the world's deaths of children under five, and bears the heavy burden of a large population with HIV/AIDS, tuberculosis, and malaria (IFC 2017).

Traditionally, the Organization of Economic Cooperation and Development (OECD) countries have been major players in the foreign aid arena, but over the last few decades, new players such as China, Brazil and South Africa have emerged as influential donors in SSA. Among these, China has become the largest donor to SSA (Woods 2008). However, as it is difficult to obtain systematic and internationally comparable data on Chinese development aid to Africa, China's role as a global donor in the social

infrastructure sector is underestimated and often misunderstood. This section of the paper aims to reveal what China is actually doing and how those activities influence the continent in terms of social infrastructure, with a special focus on the education and health sectors. Due to paucity of reliable data, the data utilized in this section is not limited to Sub-Saharan Africa, but includes the whole continent.

Education Sector

Education has become one of the important components in China-Africa relations since the first Forum on China-Africa Cooperation (FOCAC) in 2000. During the meeting, the Program for China-Africa Cooperation in Economic and Social Development through which the two parties agreed to expand cooperation in education and human resources development was launched, and more practical measures were committed during the following FOCAC meetings as illustrated in Table 11.

Chinese investment in building schools and vocational training centers, training the teachers and educational officials and providing scholarships to study in China have been undertaken. One of the noticeable aspects is that the investment is heavily focused at the post-secondary level – government scholarship programs, and the 20+20 education collaboration program between Chinese and African Institutions of Higher Education. Currently, its interest was expanded to vocational and technical education training area.

In other words, Chinese support in Africa's education sector is concentrated on improving limited access to education services at higher education rather than primary and secondary education.

One of the evident measures taken by Chinese government was to increase the number of Chinese government scholarships to African students during the third FOCAC meeting. This action plan has set the trend and the scholarship program was extended further during the following FOCAC meetings – the goal was increased to 5,500 in 2009, 18,000 in 2012 and 30,000 in 2015. This program incentivizes those African students who wish to pursue higher education to choose China for study abroad.

The contribution that China makes for Africa's higher education can be partly explained by China's soft power goals. The Chinese government launched human resource and education development programs for the continent at the political level and they serve as tools of diplomacy in Africa. This is based on the expectation that the experience that the next generation of African scholars and elites gain in China or through the Confucius Institute[21] could lead to greater willingness to cooperate with China later on (Breeze and Moore 2017a). Given its emphasis on post- secondary

[21] The Confucius Institute is a Chinese government-controlled agency which promotes the learning of the Chinese language and culture overseas since 2004. It is operated with local affiliate colleges and universities around and it even partners with local secondary schools to provide teachers and instructional materials. In 2006, a new institute was established every four days and they plan to have 1,000 institutes by 2020. However, this institute has brought a controversy in the Western media and academia for presenting a serious threat to freedom of thought and speech in education, and some universities such as University of Chicago and Stockholm University even shut down its Confucius Institutes (Zhou and Luk 2016).

education, the analysis in this section focuses on China's contribution to Africa's improved access to higher education.

Table 11. FOCAC Action Plan in Education Sector (2006 – 2015)

FOCAC III - VI	Major action plan
Beijing Action Plan (2006) Target Year: 2007 – 2009	● Help African countries set up 100 rural schools in the next three years; ● Increase the number of Chinese government scholarships to African students from the current 2,000 per year to 4,000 per year by 2009; ● Provide annual training for a number of educational officials as well as heads and leading teachers of universities, primary, secondary and vocational schools in Africa; ● Establish Confucius Institutes in African countries to meet their needs in the teaching of the Chinese language and encourage the teaching of African languages in relevant Chinese universities and colleges.
Sharm El Sheikh Action Plan (2009) Target Year: 2010 - 2012	● Help African countries to build 50 China-Africa friendship schools in the next three years; ● Implement the 20+20 Cooperation Plan for Chinese and African Institutions of Higher Education to establish a new type of one-to-one inter-institutional cooperation model between 20 Chinese universities (or vocational colleges) and 20 African universities (or vocational colleges); ● Continue to raise the number of Chinese governmental scholarships and increase the number of scholarships offered to Africa to 5,500 by 2012.

	● Intensify efforts to train teachers for primary, secondary and vocational schools in Africa, and help African countries train 1,500 school headmasters and teachers over the next three years.
Beijing Action Plan (2012) Target Year: 2013 - 2015	● Provide US$2 million annually under the framework of the UNESCO trust fund to support education development programs in Africa, in particular higher education in Africa; ● Continue to promote the establishment and development of the Confucius Institute and Confucius Classrooms in Africa.
Johannesburg Action Plan (2015) Target Year: 2016 - 2018	● Offer 2,000 degrees' education opportunities in China and 30,000 government scholarships to African countries, welcome more African youths to study in China. ● Assist African countries to renovate existing as well as build more vocational and technical training facilities, establish a number of regional vocational education centers and colleges for capacity building in Africa, train 200,000 local African vocational and technical personnel, and provide Africa with 40,000 training opportunities in China.

Source: The Forum on China-Africa Cooperation (FOCAC)

China's higher education engagement with Africa through provision of government scholarships is remarkable in terms of its scale and growth trend. As shown in Table 12, the number of African students in China rose rapidly from fewer than 2,000 in 2003 to over 60,000 in 2016 (Breeze and Moore 2017a). This 30-fold increase took place over less than 15 years. According to the UNESCO Institute for Statistics, approximately 40,000 students from Africa study in the US and UK annually, and China

overtook them both in 2014, making it the second most popular destination of choice for African students to study abroad, after France, which receives over 95,000 African students a year (Breeze and Moore 2017a).

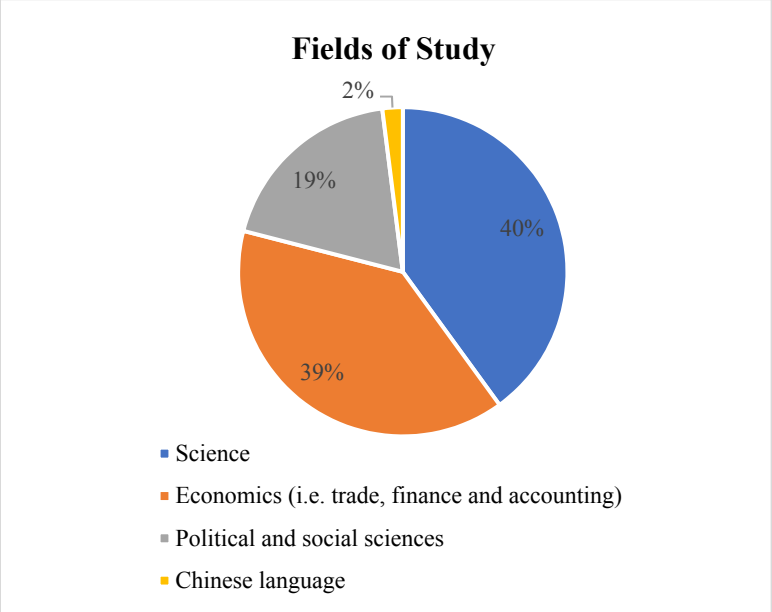
Table 12. Share of African Student at Chinese Institutes of Higher Education

Year	African Student	Total International Student	African Student % of Total
2003	1,793	77,715	2%
2004	2,186	110,844	2%
2005	2,757	141,087	2%
2006	3,737	162,695	2%
2007	5,915	195,503	3%
2008	8,799	223,499	4%
2009	12,436	238,184	5%
2010	16,404	265,090	6%
2011	20,744	292,611	7%
2012	27,052	328,330	8%
2013	33,359	356,499	9%
2014	41,677	377,054	11%
2015	49,792	397,635	13%
2016	61,596	442,773	14%

Source: Compiled by the author based on Breeze and Moore (2017b)

The fields of study African students choose in China is not recorded centrally, but a recent initiative by researchers at the Center for Chinese Studies, Stellenbosch University provided an insight. Figure 14 shows the fields of study preferred by African students enrolled on courses in Beijing. Science is the most popular course (40%), while economics-related fields are the second-most popular choices (39%). On the other hand, political and social sciences (19%) do not have the same appeal, and very few students study Chinese language. The choices of African students demonstrate their pragmatic motivations for pursuing higher education in China (Ferdiani 2012).

Figure 14. Choice of African Students for Fields of Study in China



Source: Ferdiani (2012)

Another notable approach is the higher education institutional cooperation known as "China-Africa 20+20 Higher Education Cooperation Plan". This initiative which twins 20 higher education institutions in Africa with counterparts in China, was launched in 2009 through FOCAC meeting. It is known that a diverse cooperation programs have been implemented such as joint research, faculty and/or student academic exchange, teacher training, co-writing of teaching materials development, building and equipping the laboratory and co-sponsoring symposiums (Yamada 2016).

Taking account of a critical role that those higher education institutions can play in the development of human resources and knowledge production, this cooperation program was endorsed by UNESCO, and became an integral part of the UNESCO-China-Africa Tripartite Initiative on University Cooperation in 2011 (UNESCO 2017b). This cooperation platform on education expands further based on the original plan to facilitate university partnerships, which could promote the production of knowledge that fosters mutual understanding between China and African countries and the cultivation of top-level talents who can work effectively across borders (UNESCO 2017b).

Furthermore, China's engagement in Africa's higher education and technical and vocational education takes place through Africa's regional framework called the Partnership for Skills in Applied Sciences, Engineering and Technology (PASET). PASET is a regional initiative launched by several African countries with facilitation by

the World Bank in 2013. It aims to build the capacity of African education and training institutions (from vocational and technical training and higher education and research) to train high quality technicians, engineers and scientists, and provide a platform to harmonize the investments and efforts of different partners working to build Africa's scientific and technological capacity (PASET 2018). Under the PASET framework, Chinese academic institutions take an active role through participating various forums and sharing China's experience in its capacity development in vocational and technical training and science and technology education (Sajitha 2015).

China's proactive policy to host more of African students at higher education institutes obviously increases access to education service to some groups of people in the continent. It has a great potential to cultivate the future African leaders and scholars who could work for their own country as most students are likely to return home with knowledge and skills. This is due to tough Chinese visa regulations that make it difficult to stay after completion of study in China. In addition, higher education institutional cooperation, and knowledge and experience sharing through the PASET framework is promising for building capacity of African education and training institutions. This could contribute to improved education infrastructure in Africa.

However, it is too early to analyze the impact as China's education diplomacy is quite recent and sufficient data is not available. Once quantitative information on

beneficiaries of the scholarship program – such as the countries in which students can apply for these scholarships and career outcomes – and substantial results of higher education institutional cooperation is accessible, a more accurate evaluation can be made. At the present, it is only possible to conclude that China's engagement in higher education is definitely offering greater access to education, but a better evaluation would require more time and information. On the other hands, China's excessive focus on higher education and vocational and technical training education development leaves a great deal to be desired as a limited access to primary and secondary education services is an important issue to be tackled in Africa.

Health Sector

Unlike China's investment and trade relations with Africa, its engagement in Africa's health development is not widely known, despite its long history. China's early relations with the continent in the health sector go back to 1963, when China deployed its first overseas medical team to Algeria. This was followed six years later by its first donation of a hospital in Tanzania (Liu *et al*. 2014). It is notable that China was still a poor country itself at the time. Since then, China has proactively conducted health diplomacy programs throughout the continent – dispatching medical teams, building hospitals, providing training for local health workers, and donating drugs and medical

equipment.

The programme of sending medical team continues today with more than 1,000 medical staffs deployed annually, and in this Chinese Medical Team (CMT) system, a Chinese province is responsible for one or more selected African countries and provides CMTs there (Liu et al. 2014). According to Li Anshan (2009), it is known that they had treated more than 200 million African patients since the beginning of the dispatch and the number is expected to be bigger if the current treatment is counted.

Chinese medical cooperation – which focuses on the deployment of a medical team known as *yiliaodui*, and the construction of medical facilities – started in the 1960s and 1970s (Youde 2010). The so-called "barefoot doctors", well adapted to local conditions, provided quality medical care and brought preventative care services to rural areas, despite the resource-poor settings (Youde 2010). However, due to its shift of focus to its domestic economy, China's foreign aid declined over time and so did its donations to health development in the continent.

In recent years, the Chinese government has revitalized its commitment to health diplomacy, following the framework established by the first China-Africa Cooperation Forum in 2000. Alongside pledges for the education sector, advanced action plans which are a combination of traditional financial aid and technical support programs were laid out during subsequent FOCAC meetings, as delineated in Table 13. Deploying

medical teams and constructing hospitals has remained the core of the health diplomacy programs. In the meantime, the commitments have evolved with a special focus on certain diseases or illnesses, such as malaria and cataracts. Currently, it is designed to develop and support sustainable health systems in Africa.

Table 13. FOCAC Action Plan in Health Sector (2006 – 2015)

FOCAC III - VI	Major action plan
Beijing Action Plan (2006) Target Year: 2007 – 2009	● Build 30 hospitals and provide RMB 300 million of grant for providing anti-malaria drugs to African countries; ● Build 30 demonstration centers for prevention and treatment of malaria in the next three years; ● Continue to send medical teams and to provide medicines and medical supplies needed by African countries.
Sharm El Sheikh Action Plan (2009) Target Year: 2010 - 2012	● Provide RMB 500 million worth of medical equipment and malaria-fighting materials to 30 hospitals and 30 malaria prevention and treatment centers built by China for Africa; ● Invite African professionals working in malaria prevention and treatment centers to training programs in China; ● Continue to help relevant African countries train a total of 3,000 doctors, nurses and administrative personnel.
Beijing Action Plan (2012) Target Year: 2013 - 2015	● Conduct the "Brightness Action" campaign in Africa to provide free treatment for cataract patients.
Johannesburg Action Plan (2015) Target Year: 2016 - 2018	● Support the building of an African Union Disease Control Centre and regional medical research centers, reinforce laboratory and diagnostic capacities; ● Support the investment by Chinese medical and health care

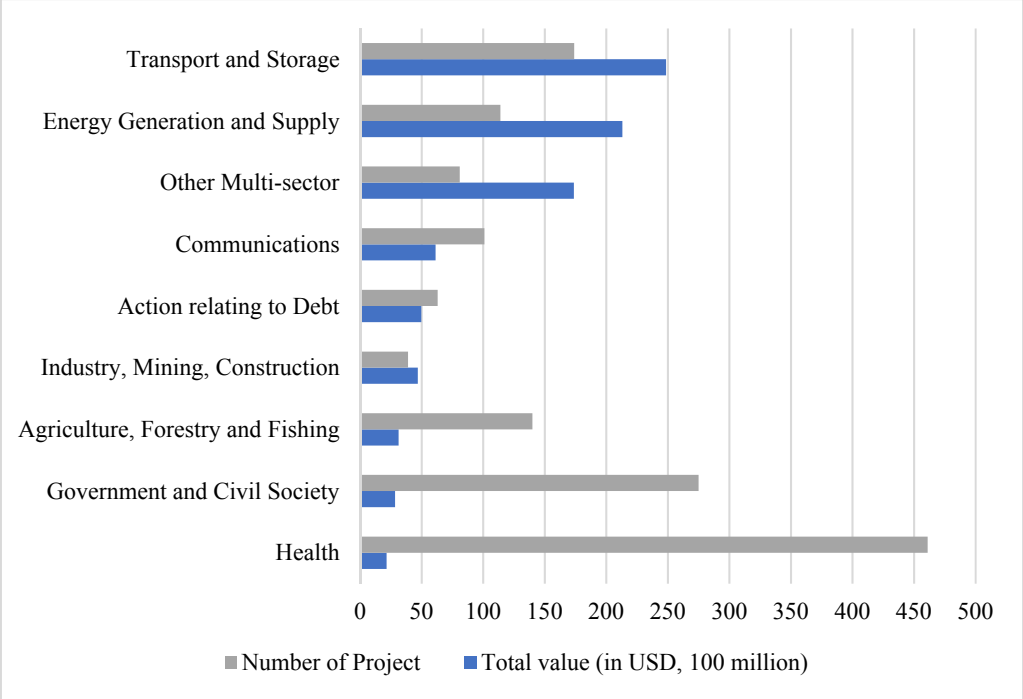
	enterprises in Africa, encourage Chinese medical institutions and enterprises to jointly operate hospitals and produce medicines in Africa; ● Incorporate the Ministerial Forum on China-Africa Health Cooperation as an official sub-forum under the framework of FOCAC.

Source: The Forum on China-Africa Cooperation (FOCAC)

As presented, the Chinese government actively engages in Africa's health development, but accurate and detailed health aid data is not published by the government. Thus, various attempts have been made by researchers to gather and consolidate fragmented and underreported data on China's health development assistance to Africa. The most recent analysis was conducted by Shajalal et al. (2017), who made use of the China Aid Data Database (version 1.2).[22] The study provides an excellent sketch of China's health development assistance to the continent.

[22] The database tracks development projects funded by different donors around the world, including development projects funded by the Chinese government during the period 2000 and 2013. In an attempt to track unreported financial data from different nonconventional donors such as China, BRICS governments and Gulf states, Aid Data developed a media based open-source data collection methodology known as "Tracking Under-Reported Financial Flows (TUFF)", which is employed to collect primary project-level data from different media. TUFF methodology collects project information from different data sources such as media reports, aid information management systems, scholarly articles, government and embassy recipient country websites (Shajalal et al. 2017).

Figure 15. Number and Total Value of Grants distributed by the Chinese Government among Different Sectors, 2000 - 2013



Note: Top 10 sectors, excluding unallocated/unspecified sectors

Source: Shajalal et al. (2017)

During the period between 2000 and 2013, China contributed $104.35 billion USD into 2,286 development projects across 24 different sectors (Shajalal et al. 2017). As shown in Figure 15, in terms of monetary value, the transport and storage sector ranks first and the health sector is on the opposite side, ranking last in the top 10 sectors. The comparison with road and energy infrastructure projects may downgrade the magnitude of Chinese health aid to Africa. However, in terms of project number, health sector stands

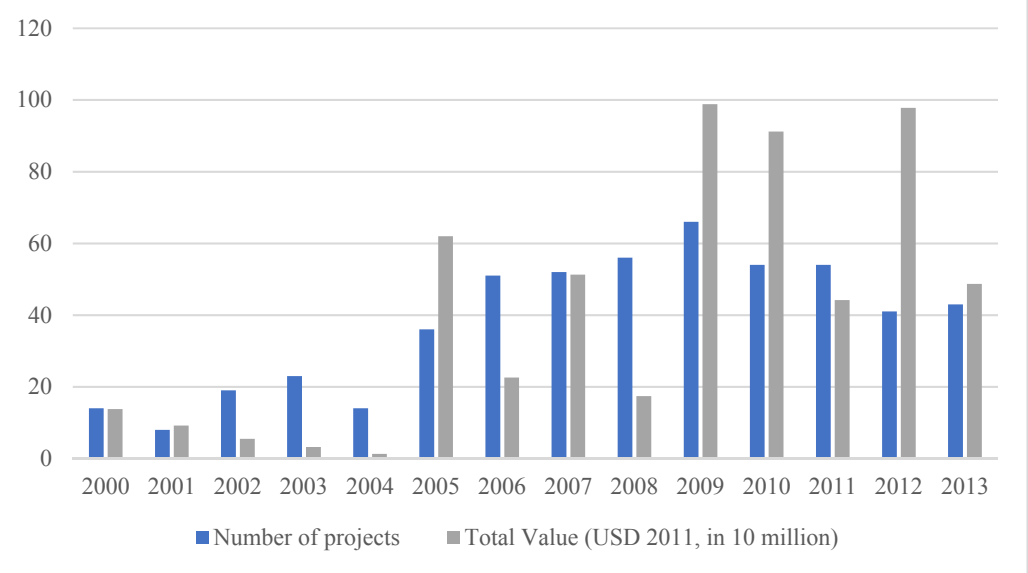
at the top. This figure indicates that most Chinese health projects in Africa are conducted with small budgets.

The flow of Chinese public health assistance to Africa was quite low in the early 2000s and there was a continuous fall in the value of aid committed until 2004. However, since mid-2000, the number of projects and the value of aid given has generally increased, and reached its peak in 2009, with 66 projects and a budget of $987.74 million USD. During the period of 2000 to 2013, the number of public health projects and the aid value contributed by the Chinese government to Africa more than tripled (Figure 16). This support was distributed to 48 out of the 54 African countries, and the top 10 countries received around 69% of the total funding and 83.66% of the total projects (Sahjalal et al. 2017).

As shown in Figure 17, Chinese development assistance for health is largely focused on the general health sector and, out of all diseases, malaria received the most attention. In terms of its activities, projects related to infrastructure, equipment and medicine received the most support, followed by the deployment of medical teams. This is not surprising as these activities are part of China's traditional approach to the health sector, and commitments to address malaria in the continent have been made by the Chinese government during several FOCAC meetings. What is notable in this graph is that China also pays attention to Africa's epidemiological crisis by conducting several

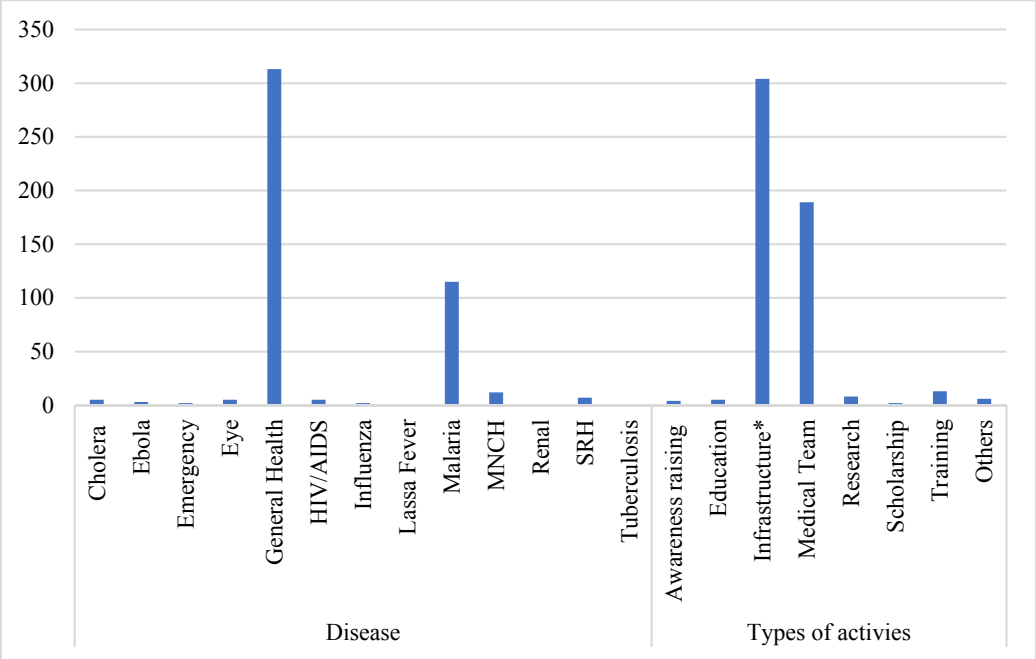
projects related to Ebola, influenza and Lassa fever (Sahjalal et al. 2017). Additionally, China's largest ever overseas humanitarian aid to combat the Ebola outbreak in West Africa in 2014 clearly demonstrates its sensitivity to disease outbreaks and the diversified nature of its activities in the global health domain (Tambo 2016).

Figure 16. Number and Total Value of Public Health Projects by China, 2000 – 2013



Source: Shajalal et al. (2017)

Figure 17. Distribution of Chinese Public Health Assistance - Number of Projects by Disease and Types of Activities, 2000 – 2013



Source: Shajalal et al. (2017)

China's health diplomacy in Africa can be described as a "political activity that meets the dual goals of improving health while maintaining and strengthening international relations" (Novotny and Kickbusch 2008). The long and continuous contacts between Chinese doctors and African citizens forges strong bonds, and this friendly relationship is extended through to the political level through "earning the gratitude of many African leaders, eager to be seen providing public goods to their citizens." (Thompson 2005). Although the magnitude of Chinese health aid to Africa is

smaller relative to other bilateral DAC donors, health diplomacy has become an important component of China's foreign policy towards the continent.

In that sense, it is possible to forecast that China's bilateral health aid contributions to Africa will increase depending on the needs of each country, and this implies a great potential in its contribution to healthcare and health-related infrastructure in Africa. This interpretation is again from a quantitative angle. For a qualitative assessment, further research and investigation on each health project operated by the Chinese government would be required.

Conclusion

China's active participation in social and economic infrastructure projects in Africa shows quite a constructive outcome. As highlighted, Chinese firms produce products or develop niche technologies that are particularly appropriate to serve the local demand in Africa. In this sense, Chinese firms have great potential to induce innovation by delivering locally customized ICT products and services in Africa. This improved ICT infrastructure can play a critical role in developing the private sector. Regarding the energy sector, although China's energy engagement in Africa is driven by the need for overseas markets, China's activities contribute to the power sector development through construction of new generation capacity in Africa. Thus, its diversified power generation

capacity combines an increase in energy access in urban as well as rural areas.

The engagement pertaining to social infrastructure, has been increasing and expanding in recent years. China's higher education commitment and diversified health diplomacy has definitely improved relevant infrastructure and increased access to services for the population of Africa in a significant manner. Based on these assessment, it is possible to conclude the current Chinese investment in social and economic infrastructures are positively influencing improved physical infrastructure and increased access to services. Therefore, it is in part contributing to address limited access to physical infrastructure, one of critical impediments for private sector development in Africa.

5.3. Enterprise Development

Under the last pillar, challenges directly related to the operations and growth of private enterprises are highlighted. The priority areas are value chain development and catalytic investments, and MSME promotion through improved access to finance and financial services. In SSA, limited access to funding leads to significant underinvestment, while a low level of value chain limits the scope of business activities. Consequently, these impediments reduce productivity and the competitiveness of the private sector.

Table 14. Pillar III – Weak Value Chain Linkages and Financial Access

KEY CHALLENGES	PILLARS	TARGET OUTCOMES	OPERATIONAL AREAS
Weak value chain linkages and financial access	PILLAR III: Enterprise Development	3.1. Value chain development and catalytic investments	•Value chain development in manufacturing sector
		3.2. Micro, small and medium-size enterprises (MSMEs) promotion	• Support for MSMEs' access to finance and financial services

Source: AfDB (2013), edited and modified by the author

In this section of the paper, a comprehensive analysis will be made of how China addresses the weak value chain linkages and financial access in Africa, through the PSD framework (Table 14). The first part examines China's impact on value chain

development in the manufacturing sector and the latter part deals with its support for MSME's access to finance and financial services. This evaluation will allow for a general conclusion on the influence of China on Africa's enterprise development.

5.3.1. Value chain development and catalytic investments

In an integrated world economy driven by modern and cheaper transportation and communication costs, technological progress, and fewer trade barriers, production networks have been increasingly dispersed across the globe and between firms. The cliché of a "world car", with the production of parts and components spanning many countries, and the final assembly taking place near the markets, such as the United States, Europe, China, and Japan, illustrates perfectly a concept known as global value chains (GVCs) or an "international production network" (Dollar 2016).

This value chain spans the full range of activities involved in bringing a product or a service - from product conception, acquisition of primary materials, production, marketing, packaging and distribution to its end use by final consumers. (Gereffi and Fernanadez 2011; OECD 2013). At each step in the chain, value is added as they pass from one link in the chain to the next until reaching the final consumer, generating systems of global supply chains (AfDB, OECD and UNDP 2014).

For developing countries with constraints in their manufacturing and services

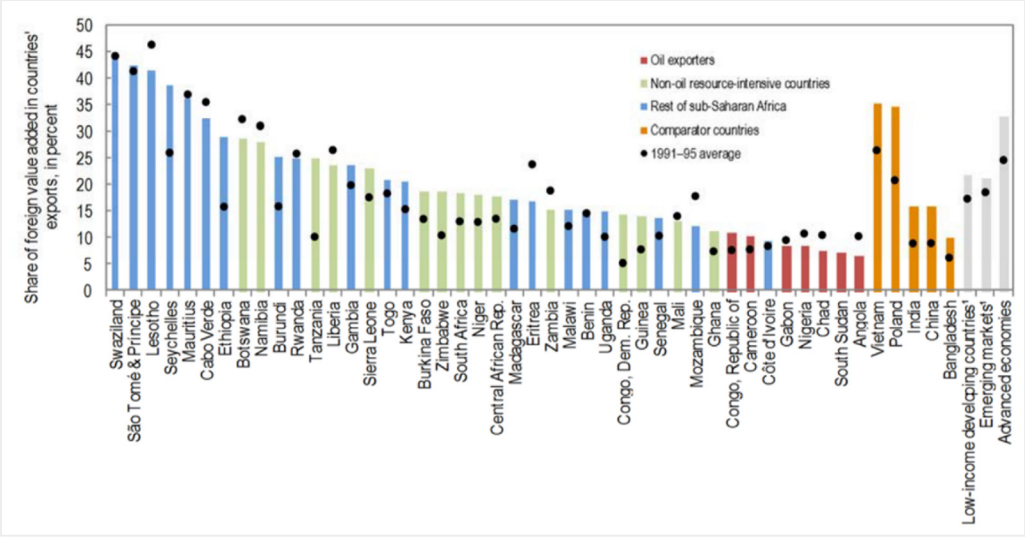
sectors, this development can provide an opportunity to participate in a production chain at a specific stage without having to develop domestic industries that would capture all the segments of production. Ideally, this allows technology and knowledge transfers from interactions with global buyers and suppliers, product differentiation, and eventually, an upgrade to higher-value added segments of the production chain (IMF 2016). This was realized by Asian countries that initially participated in the most labor-intensive segments of the production process. They progressively moved up the value chain and now dominate in the most sophisticated parts of the value chain. In this context, the deconstruction of the international production networks has been a gift to developing countries.

However, not all developing economies are able to find their niche along the value chain. According to an IMF (2016) report, African economies still position themselves at the start of the integration process into global value chains. Their relatively minor involvement in the form of forward integration is attributed to its high share of primary commodity exports as inputs for other countries' exports. Where African economies stand is comparable through examining the share of foreign value added to country's exports.[23]

[23] Given that rising backward integration has been associated with rising income over time for developing and emerging economies, the share of foreign value added to a country's exports is utilized to evaluate the integration of African economies into global value chains.

As shown in Figure 18, there is a significant difference in GVC participation across SSA countries. Most oil exporting countries – such as Angola, South Sudan and Chad – have not made much progress and their integration level in GVCs is very low. On the other hand, some countries have made positive progress over time – these are mostly resource-poor countries, such as Swaziland, Lesotho and Ethiopia. Nonetheless, about two-thirds of SSA countries fall below the average value chain integration for developing economies.

Figure 18. Sub-Saharan Africa and Comparator Countries: Depth of integration in Global Value Chains, Average 2008 – 2012



Source: IMF, Regional Economic Outlook, Chapter 3, April 2015

Several factors can be suggested as obstacles for Africa's involvement in global value chains, such as the Dutch disease, deficiencies in infrastructure, a weak rule of law and others. However, a key issue lies in insufficient levels of capacity, quality and efficiency, which are preconditions to join GVCs (Baldwin 2011). Given that the prime actors in a value chain are firms from the private sector, "value chain development builds on entrepreneurial dynamics that reach out for improved competitiveness and value addition" (UNIDO 2011). Nonetheless, the African private sector lags far behind to meet the preconditions to join the international production networks so enhancing their scales and capabilities is the core issue to be addressed.

Accordingly, it is not realistic for African countries on their own to attempt to develop value chains reaching a global scale and efficiency, as many of them, with an exception of South Africa, are not yet ready for the international production networks mostly organized by multinational enterprises (MNEs) from developed countries. The more promising strategy, therefore, is to integrate into the value chains of existing MNEs' by building capabilities in specific tasks, addressing domestic supply chain barriers and considering regional value chain development as a stepping stone to improving participation in GVCs (OECD 2013).

In this context, China's increasing economic engagements with Africa is a boon for the continent. In recognition of China's gradual loss of its attractiveness as a labor-

intensive manufacturing hub, the Chinese manufacturing investment is shifting away from China, with Vietnam and Mexico becoming the primary beneficiaries. In recent years, Chinese investors have also been looking towards some African countries such as Ethiopia, Ghana and Kenya. This shift to African countries usually begins by trading with the continent and this interaction leads to their decision to invest and set up a local factory (Gu 2009). Where the local supply capacity is weak, local suppliers serve as simple raw material providers and other necessary industrial supplies are imported, mainly from China. Finally, some of those related to Chinese firms cluster together to gain mutual support and coordinated production, building an industrial park (Bräutigam and Tang 2013).

This Chinese investment pattern and business behavior could facilitate the improved integration of African countries into GVCs. First, given weak domestic supply linkages, the presence of Chinese operations fills this gap, and integrates the continent into existing value chains. Second, contacts with Chinese buyers and investors enable the diffusion of information and technology in the continent through which domestic supply networks could be improved and strengthened. In this case, a minimum level of local suppliers' absorptive capacity is required – the following case study on Ethiopia offer an intuitive illustration of this, albeit at the micro-level.

Case Study – Ethiopia's leather industry

In Ethiopia, significant potential for private sector transformation lies in the leather value chain. The country has the largest livestock herds in Africa, with an estimated 100 million cattle, sheep and goats (Bräutigam, Weis and Tang 2016). The production network of leather and leather goods in Ethiopia exhibit a dualism, with a sizable informal artisan sector, alongside a small number of relatively larger firms. The former has formed a cluster of artisanal shoes and leather products workshops in the Merkato area in the heart of Addis Ababa (Bräutigam *et al*. 2016). Despite its rich endowment in livestock resources and the large cluster in the capital, its share of the world trade of leather and leather products remains small, and most of Ethiopia's leather was traditionally exported semi-processed, mainly to Italy, for high-end production.

This low entry level in the leather value chain is mainly due to the incompetency of local tanneries, which are not sufficiently advanced to process up to the crust level.[24] In order to tackle this issue, the government lifted a ban on foreign investment in tanneries in 2004, leading to a significant increase in foreign investment in the processing of raw hides and the manufacture of leather products. At the same time,

[24] The leather value chain is built on the meat industry. Usually hides and skins are collected by traders from homes, stores and rural butchers, and sold to tanneries. Those go through the processing: from pickle to we blue, crust and finally coated or finished leather. Higher technology, greater skill and advanced chemical addition is required as they move through each processing stage. (Bräutigam et al. 2016)

the government initiated a series of programs and trade policies to encourage domestic processing and further value addition. In 2008, the government levied a 150% export tax on exports of raw and semi-processed hides and skins and this led to a dramatic decline in Ethiopia's exports of raw hides and skins in 2009 (Malancha Chakrabarty 2016).

These measures aim to attract foreign firms involved in the leather sector to relocate to Ethiopia, in the hope that it could help the country break into GVCs by building relationships with the companies that produce for the large-scale or distribute internationally. In addition, the interactions could generate spill-over effects that could transfer skills, technology, and knowledge to local firms all along the value chain, gradually allowing local firms to "emulate" foreign companies and develop their own capacity to break into international markets (Bräutigam *et al*. 2016).

This strategy of attracting a "foreign goose" was realized by recent arrival of Huajian Group, one of the largest shoe exporters in China.[25] Huajian Group, based in Dongguan, Guangdong province, produces about 20 million pairs of shoes a year for famous shoe brands worldwide, such as Guess, Nine West and Calvin Klein (Nsanzugwanko 2017). Different from usual investment pattern, the arrival of Huajian Group was initiated at the personal invitation of its late Prime Minister Meles Zenawi (Felipe 2015). During his visit to China in August 2011, the CEO of the Group was asked

[25] Huajian is said to be the world's largest OEM (Original Equipment Manufacturer) of brand shoes.

to open a shoe manufacturing plant in Ethiopia. Within weeks, a visit to Ethiopia was made by the Huajian Group and later in November, the company decided to rent space in Chinese-run Eastern Industrial zone (EIZ) and open its plant (Nicolas 2017). It took just three months to build the plant and production started in January 2012. Although the Ethiopian government played a key role in picking the interest of the Chinese producers, Ethiopia's cheap labor costs, which cost one tenth of the price of Chinese workers, abundant domestic supply of leather, and its duty-free and quota-free access to European and U.S. markets strongly motivated the investment.

The local operation began with two production lines, employing 600 local people. Now, the Huajian International Ethiopia employs over 4,200 locals in six productions lines, and produces nearly 180,000 pairs of shoes a month, that is about 2 million a year (Chen 2015; Hou 2017). The Huajian International Ethiopia work on fulfilling American and European Original Equipment Manufacturing (OEM) orders so most are exported to those markets under brand names such as Guess, Nine West and Naturalizer (Chen 2015; Hou 2017).

Given that 60 percent of the employees are Ethiopian, and the company aims to localize the workforce up to 70 to 80 percent, local staff training is not an option, but an essential prerequisite to run operations in Ethiopia (Chen 2015). Thus, newly hired workers without experience in the manufacturing sector are required to participate in a

pre-work training program, and all employees regularly attend on-the-job training sessions. Furthermore, the company selects a group of young Ethiopian university graduates and sends them to the headquarter in China for training (Bräutigam, McMillan and Tang 2012). Among trainees, good performers have an opportunity to take on managerial positions back in Ethiopia. It is believed that such forms of on-the-job training are vital in upgrading local technological and managerial capabilities.

In addition, the Huajian Group has chosen to further invest in Ethiopia by establishing its own Special Economic Zone, the so-called "Huajian International Light Industry City" in Lebu, on the outskirts of Addis Ababa in April 2015 (Nicolas 2017). The company secured 138 hectares of land and committed to jointly invest USD 2 billion with the China-Africa Development Fund (CADF) over 5 years. Once it reaches its completion in 2020, it is expected to generate annual revenues of USD 2 billion, and create 50,000 to 60,000 local jobs (UNIDO 2017). The objective of the establishment is to serve as an Ethiopian supply chain cluster and turn Ethiopia into a global hub for the shoe industry, supplying the African, European and American markets (Nicolas 2017). Thus, other producers of footwear, leather garment, gloves, handbags, and accessories will be allowed into the zone.

This deeper Chinese investment is good news for Ethiopia. In the same way that FDI was an important stimulus for growth, industrial upgrading and participation in

GVCs for China, this trend has similar potential for Ethiopia. First, the development of local supply linkages in the leather industry could be expected. Initially, the Huajian Group imported 70 percent of their leather supply due to a shortage of quality skins and hides in Ethiopia, but now the company is gradually increasing its leather purchases from local tanneries, and Huajian's higher standards push local companies to improve (Nicolas 2017). On the side of the artisan sector, presence of large firms like Huajian enabled them to locally purchase necessary components such as buckles, zippers and shoe lasts (foot-shaped mechanical forms). Without this side-business of Huajian Group in the local market, many local companies would have to import the components from abroad at a higher cost (Bräutigam *et al*. 2016). If this type of interaction continues, local suppliers can benefit by enhancing their competency and capabilities through exposure to new technologies and through meeting the lead firm's requirements. Eventually, the patchy supply chains of the leather industry could be improved.

Second, the local employment and training programs of Huajian Group can generate skills and technology transfers, and ultimately could boost local capacity building in the leather industry. Lastly, the Industrial Park can offer opportunities for technology and knowledge spill-overs to local firms, if rightly implemented and local producers are allowed into the zone to benefit from clustering effects. In both ways, a favorable environment to accumulate local expertise, emulate "foreign geese," and build its own capacity to reach out regional and global market is being created.

To conclude, the presence of Chinese firms like Huajian is filling the weak supply linkage gap and integrating the country into existing GVCs to some degree. This therefore, encourages the country to enhance supplier capabilities, develop value chains and ultimately, upgrade its participation in regional and global production networks. Yet, promising value chain developments depend on the continued efforts of Chinese firms to build linkages with local firms, and of local suppliers to learn and emulate their Chinese business partners. Last but not least, the government's support to incentivize both foreign investors and local firms to interact in a constructive manner is also critical.

5.3.2. MSMEs promotion

Micro-, small- and medium-size enterprises (MSMEs) constitute the majority of Africa's private sector. These MSMEs are often very small, informal, and family-based enterprises and run with insufficient financial access and a lack of market information and financial literacy. Such financing constraints are either due to the incapability of companies to suggest profitable proposals, or the reluctance of financial institutions to offer loans to MSMEs (AfDB 2013). This limits sound investment in a wide range of sectors, such as manufacturing, agriculture, ICT, and trade, and research and development which results in low levels of innovation and competitiveness. Although financing bottlenecks vary in size across the continent, it is consistently reported to be

one of major obstacles for enterprise development in Africa.

In light of the importance of promoting MSMEs, AfDB takes a holistic approach, utilizing all available instruments at all relevant levels. *The Africa SME Programme* supports African Local Financial Institutions (FIs) with long-term liquidity and technical assistance so that they can provide adequate and good quality loan portfolios to local MSMEs. In addition, it also provides technical assistance to local MSMEs, the clients of FIs to enhance their ability to prepare better loan application – development of business plan and financial literacy training. Another representative initiative is *the African Guarantee Fund for small and medium-sized enterprises*. It is designed to provide financial guarantees to financial institutions to vitalize their financing to SMEs. Apart from the two major programs, various interventions are taken to tackle a mismatch issue in the supply and demand of MSMEs financing.

In line with these initiatives, Chinese government has made a commitment to help African countries overcome challenges of MSMEs financing. At the Fourth Ministerial Conference of the Forum on China-Africa Cooperation (FOCAC) in 2009, the Special Loan for the Development of African SMEs was introduced as the third measure to strengthen China-Africa cooperation. Under this commitment, the China Development Bank (CDB) serves as the only agency to implement the special loan of 1 billion USD and the target beneficiaries are African SMEs, including solely African-

owned SMEs, exclusively Chinese-owned SMEs in Africa, Chinese-African joint-equity SMEs, and contractual joint venture SMEs (MOFCOM 2011). This loan scheme is operated in two modes: on-lending and direct lending[26].

According to China Development Bank, as of the end of 2014, this program had committed a total of 1.761 billion USD in loans, covering 29 countries including Kenya, Angola, Morocco, South Africa, Nigeria, Ghana, Mozambique and Ethiopia. The Ministry of Commerce of China has evaluated that the projects supported by the loans have directly created jobs in Africa and stimulated trade between China and African countries. However, given that the only source of information for this project is the China Development Bank and the Ministry of Commerce of China, and exact and detailed information on the implementation of the special loan project is unavailable, it is difficult to analyze how China's commitment contributes to the development of African MSMEs.

Nonetheless, support for African SMEs as part of China's economic diplomacy strategy is a good sign for the development of the private sector Africa more broadly. This kind of initiative by the government could send a positive signal to other Chinese financial institutions or private companies to invest in this area. Once more commitments

[26] For on-lending mode, the local SMEs apply for credit line to the on-lender which is in charge of project screening, evaluation, execution and final repayment of the loans. Once it is approved by the on-lenders, CDB ratifies the approval, and lend the loan to on-lenders. Then, local SMEs receive loan from the on-lender. Those on-lenders are always government-designated on-lending institutions, regional or sub-regional financial institutions, high-ranking commercial banks in respective countries. Regarding direct-lending, CDB directly grants credit lines to local SMEs with higher credit rating, viable and commercially feasible projects, and controllable risk (MOFCOM 2011).

are made by various Chinese financial institutions and private companies to promote MSMEs in Africa and comprehensive information becomes available, it would be possible to assess the impact of China on African MSMEs development in future studies.

Conclusion

China's contribution to Africa's development of enterprise has been analyzed in two priority areas – value chain development and MSMEs promotion. Its efforts to improve access to finance and financial services for MSMEs are difficult to assess despite some initiatives taken by the Chinese government to address the issue. Regarding value chain development, the presence of Chinese firms appears to fill the weak supply linkage gap, and integrate the country into existing GVCs to some degree. This, therefore creates a favorable environment in which to accumulate local expertise, emulate what foreign companies are doing and build capacity to reach out to regional and global markets. The increasing investments of Chinese firms in the manufacturing industry in Africa are positively influencing the value chain development in the manufacturing sector in the continent. Accordingly, it is possible to draw the general conclusion that China is, in part, contributing to the development of enterprise in Africa.

VI. Discussion

6.1. Challenges

This thesis does not seek to provide an apologia for the problems imposed by China on the continent, but rather reveal untold stories about the role and impact of China in SSA. However, before reaching the conclusion, several major issues caused by the presence of China will be highlighted for the sake of balance. The most widely-held criticism is an alleged lack of corporate social responsibility among Chinese firms, ranging from poor labor practices to environmental damages (Gu 2009).

The report by Human Rights Watch (2011) on labor abuses in Zambia's Chinese state-owned copper mines provides a clear picture of the poor labor practices of some Chinese companies in Africa. Although the locals welcome the investment and job creation by Chinese firms, miners suffer from abusive working conditions which fail to comply with local and international labor standards, e.g. poor ventilation which can cause serious lung diseases, excessive workhours which violate Zambian labor law, a failure to provide personal safety equipment, and lower payment than other international copper mining firms (Human Rights Watch 2011).

Although not all Chinese companies in Africa place their local employee in poor working conditions, these practices are reported to be quite common in many labor-

intensive sectors. The attitude of Chinese firms to treat labor safety and health measures as trivial seems to be the main cause of the issue (Human Rights Watch 2011). Unless this problem is resolved, Chinese firms will always be in the media spotlight. While it is the onus of Chinese companies to comply with domestic and international labor standards, the governments of African countries must monitor these companies and ensure they operate with socially responsible labor practices.

Regarding environmental issues, Chinese investment in Africa is concentrated in environmentally sensitive sectors and many fail to meet international green standards. According to Michelle Chan-Fishel, "Chinese companies are quickly generating the same kinds of environmental damage and community opposition that Western companies have spawned around the World" (Chan-Fishel 2007). The troubling situation has its roots in the domestic situation, where Chinese policies have prioritized economic growth over the protection of the environment, so corporate concern about the environment has not figured as part of the culture of Chinese enterprises until very recently (Bosshard 2009).

Currently, in response to international criticism, the Chinese government has set laws and regulations to protect the environment, but this policy is, in part, encouraging Chinese companies to relocate their operations to regions where the regulatory requirements are less strict, such as Africa (Bosshard 2009). Given the

importance of the environment to the global community, there is an urgent need for these companies to adopt responsible practices. Again, the responsibility lies with Chinese companies, but African governments also need to ensure that companies comply with international environment standards through stringent regulation and severe enforcement. Furthermore, intergovernmental collaboration between China and African countries is urgently needed to stop those companies from "going shopping" to find countries with laxer regulation, and enterprises using lower environmental standards as a strategy to win business deals (Gu 2009; Bosshard 2009).

6.2. Conclusion

In much of the current literature, China's involvement in SSA has been painted in a rather unfavorable way. Criticisms of what China brings to Africa are not entirely untrue, but this paper uncovered a striking discrepancy between what China is actually doing and what critics say about what China is doing in SSA. This paper has evaluated the role and impact of China on the development of the private sector in SSA through a systematic analytical framework, and has shown that the widely-held view about China is one-dimensional. Although this research was not conducted with consistent data, both soft and hard data have provided evidence of the practical realities of Chinese enterprises in Africa beyond the extractive industry, and this has offered a somewhat different

picture.

The table below summarizes the findings of this research. Except for two areas, the study finds that China's economic engagements with SSA Africa help to address key challenges in private sector development. Even though China's entry into the continent is primarily driven by pragmatic reasons, the presence of Chinese firms in Africa offers various opportunities in terms of labor market development, social and economic infrastructure and service improvement, and value chain development, which all contribute collectively to the development of the private sector. Although these areas are partial by themselves, an overall conclusion can be drawn that China's economic engagement is contributing to laying the groundwork for private sector development in the continent.

Table 15. Impact of China on Private Sector Development in Sub-Saharan Africa

PILLARS	TARGET OUTCOMES	OPERATIONAL AREAS	IMPACT
PILLAR I: Investment and Business Climate	1.1. More efficient national and regional factor and product market	•Local labor market development	•Local employment and training by Chinese firms positively contribute to local labor market development
	1.2. Improved investment and business climate in RMCs through policy and	•Business regulatory reforms	•No sign of influence is found yet

	regulatory reforms		
PILLAR II: Access to Social and Economic Infrastructure	2.1. Improved physical infrastructure and increased access to services; Transport, Communications, Energy, Water supply and Sanitation	•ICT and energy infrastructure and services improvement	•Locally tailored ICT infrastructure and service provided by Chinese companies better connect the continent with the globe •Chinese investment in Africa's power sector increases energy access in the continent
	2.2. Improved social infrastructure and increased access to services; Education, Health care	•Education and Health-related infrastructure and services improvement	•China's higher education commitment and diversified health diplomacy has improved relevant infrastructure and increased access to services for the population of Africa in quantitative manner
PILLAR III: Enterprise Development	3.1. Value chain development and catalytic investments	•Value chain development in manufacturing sector	•Presence of Chinese firms creates a favorable environment to accumulate local expertise, emulate foreign firms and build its own capacity to reach out regional and global market
	3.2. Micro, small and medium-size enterprises (MSMEs) promotion	• Support for MSMEs' access to finance and financial services	•No sign of influence is found yet

Furthermore, several unique characteristics of the Chinese omnipresence have renewed the economic and geopolitical importance of the continent in the globe, and provide an alternative to Africa's traditional economic partners. First, the scale and the speed of China's entry into African market is not imitable by any economy. In a mere two decades, China has become SSA's largest economic partner – being the biggest bilateral trading partner and infrastructure financier, investing with a rapid rate of growth at an average annual rate of 32 percent, and contributing the largest foreign aid as an emerging country to Africa. It is noteworthy progress since China is a latecomer to Africa.

Second, Chinese entrepreneurs' risk-taking and decisive characteristics enable investments in untouched areas, where local companies cannot capitalize the opportunity due to incompetency and Western firms are unable to take the risk. The willingness to take a risk and transform it into a business opportunity, while enduring low profits for a long-term goal, are commonly found characteristics of entrepreneurship in Chinese companies and this investment pattern is expected to dig and develop the untapped market in Africa.

Lastly, given that China itself is going through structural transformation, its current development experience can offer much more useful and appropriate skills and knowledge to African countries than the traditional donor countries. For instance,

Chinese enterprises know best about labor-intensive manufacturing businesses, rather than capital-intensive or knowledge-intensive sectors. This area is where African economies should begin to advance to trigger its developmental take-off and China is the most suitable partner for this. Whether the impact is positive, neutral or negative, in the near future, none of the traditional and longstanding economic partners would be able to engage with the continent with such depth.

Given these opportunities and briefly mentioned challenges, some implications for long-lasting and constructive relationships between China and Africa can be derived. Having identified the various positive impacts being made by Chinese firms in the development of the private sector, African governments should optimize the Chinese presence. The most important fact of which African governments should be aware is that they retain the power and leverage to mandate and enforce regulations that serve the needs of their population. This point was well highlighted through a case study of workforce localization by Chinese companies in Africa. Those countries which mandate the proportion of local staffs and skills training in business operations have partly encouraged the new trend of employment practices of Chinese enterprises. Given that there are many opportunities and incentives to stay in the African market for Chinese firms, compliance to properly enforced rules would be expected. Accordingly, African governments must develop their own strategies to deal with the influx of Chinese companies, and incorporate the strategies into their national policy and regulations with

stringent monitoring and implementing system. Otherwise, some Chinese companies will continue to abuse less strict regulations for the sake of their economic interests.

From the end of the Chinese government, it is necessary to promote the concept of corporate social responsibility. Up until recently, the Chinese government has concentrated on domestic economic growth over diverse social issues, and this has taken root in Chinese corporate culture. The current campaign to promote the corporate social responsibility of domestic firms should also be applied to those investing overseas, including Africa. Since influencing the behavior of privately-owned companies – particularly that of micro or small – is not an easy task, the promotion ought to begin with those SOEs investing abroad. From the side of Chinese companies, cultivating a socially responsible enterprise culture should be included as part of the business strategy in Africa so that the investment is not short-lived. A long-standing and sustainable relationship between China and African countries is unimaginable without the combined efforts of three involved parties – African governments, the Chinese government and Chinese investors in the continent.

Bibliography

AfDB. 2011. “African Development Report 2011 - Chapter 2: The Legal and Regulatory Environment”. Addis Ababa: African Development Bank.

AfDB. 2013. "Supporting the Transformation of the Private Sector in Africa: Private Sector Development Strategy, 2013 - 2017". Addis Ababa: African Development Bank.

AfDB, OECD and UNDP. 2014. "Global Value Chains and Africa's Industrialization: African Economic Outlook 2014." Thematic Edition. African Development Bank, Development Center of OECD, United Nations Development Programme.

Asongu, Simplice A, and Gilbert Aminkeng. 2013. "The Economic Consequences of China-Africa Relations: Debunking Myths in The Debate". *Journal of Chinese Economic and Business Studies* 11 (4): 261-277. doi:10.2139/ssrn.2493358.

Baldwin, Richard. 2011. “Trade and Industrialization after Globalization’s 2nd Unbundling: How Building and Joining a Supply Chain Are Different and Why It Matters.” Working Paper No. 17716, Cambridge: National Bureau of Economic Research.

Bayraktar, Nihal. 2013. "Foreign Direct Investment and Investment Climate". *Procedia Economics and Finance* 5: 83-92. doi:10.1016/s2212-5671(13)00013-0.

Biggeri, Mario, and Marco Sanfilippo. 2009. "Understanding China's Move into Africa: An Empirical Analysis". *Journal of Chinese Economic And Business Studies* 7 (1): 31-54. doi:10.1080/14765280802604714.

Bosshard, Peter. 2008. "China's Environmental Footprint in Africa." SAIS Working Papers in African Studies 01-08. Washington, D.C.: The Johns Hopkins University, Paul H. Nitze, School of Advanced International Studies.

Bräutigam, Deborah, Margaret McMillan and Xiaoyang Tang. 2012. “The Role of Foreign Investment in Ethiopia’s Leather Value Chain.” PEDL Research Note – ERG project 106. Private Enterprise Development in Low-Income Countries.

Bräutigam, Deborah, and Xiaoyang Tang. 2014. "“Going Global in Groups”: Structural Transformation and China’s Special Economic Zones Overseas". *World Development* 63: 78-91. doi:10.1016/j.worlddev.2013.10.010.

Bräutigam, Deborah, Toni Weis, and Xiaoyang Tang. 2016. "Latent Advantage, Complex Challenges: Industrial Policy And Chinese Linkages In Ethiopia's Leather Sector". China Economic Review. doi:10.1016/j.chieco.2016.06.006.

Breeze, Victoria and Nathan Moore. 2017a. "Why African Students are ditching the US for China." *CNN*, June 29. Accessed December 1. http://edition.cnn.com/2017/06/29/africa/african-students-china-us/index.html

Breeze, Victoria and Nathan Moore. 2017b. “China tops US and UK as Destination for Anglophone African Students.” *The Conversation*. https://theconversation.com/china-tops-us-and-uk-as-destination-for-anglophone-african-students-78967.

Busse, Matthias, Ceren Erdogan, and Henning Mühlen. 2016. "China's Impact on Africa - The Role of Trade, FDI and Aid". Kyklos 69 (2): 228-262. doi:10.1111/kykl.12110.

Chan-Fishel, Michelle. 2007. "Environmental Impact: More of the Same?" In Firoze M. and Marks, S. (eds.) African Perspectives on China in Africa. Cape Town: Fahamu.

Chen, Chuan, Andrea Goldstein, and Ryan J. Orr. 2009. "Local Operations of Chinese Construction Firms in Africa: An Empirical Survey". *International Journal of Construction Management* 9 (2): 75-89. doi:10.1080/15623599.2009.10773131.

Chen, Weihua. 2015. "Putting the Best Foot Forward Shoe-Manufacturing Giant Plans Major Expansion in Ethiopia." Chinese Enterprises in Africa 2015. p126 – 127.

Chen, Wenjie, David Dollar, and Heiwai Tang. 2016. "Why Is China Investing in Africa? Evidence from the Firm Level". *The World Bank Economic Review*, lhw049. doi:10.1093/wber/lhw049.

Chen, Wenjie, and Roger Nord. 2017. "A Rebalancing Act for China and Africa: The Effects of China's Rebalancing On Sub-Saharan Africa's Trade and Growth." Washington, D.C.: IMF.

DFID. 2008. "Private Sector Development Strategy Prosperity for All: Making Markets Work." London: Department for International Development.

Djankov, S., La Porta, R., Lopez-de-Silanes, F., Shleifer, A., 2002. "The regulation of entry." *Quarterly Journal of Economics* 117 (1), 1–37.

Dollar, David. 2016. "China's Engagement with Africa: From natural resources to human resources." Washington, DC: The John L. Thornton China Center at Brookings Institution.

Dreher, Axel, Andreas Fuchs, Roland Hodler, Bradley Parks, Paul A. Raschky, and Michael J. Tierney. 2016. “Aid on Demand: African Leaders and the Geography of China’s Foreign Assistance.” AidData Working Paper No.3. Williamsburg, VA: AidData.

Drummond, Paulo, and Estelle Xue Liu. 2015. "Africa’s Rising Exposure to China: How Large Are Spillovers Through Trade?". *International Advances in Economic Research* 21 (3): 317-334. doi:10.1007/s11294-015-9537-9.

Escribano, Alvaro, J. Luis Guasch and Jorge Pena. 2008. “Assessing the Impact of Infrastructure Quality on Firm Productivity in Africa: Cross Country Comparisons Based on Investment Climate Surveys from 1999 to 2005.” Policy Research Working Paper 5191, Washington, DC: World Bank.

Farrell, Jamie. 2016. "How do Chinese Contractors Perform in Africa? Evidence from World Bank Projects." SAIS China Africa Research Initiative Working Paper Series 3. Washington, D.C.: Brookings Institution.

Felipe, Jesus. 2015. “Development and Modern Industrial Policy in Practice.” The Asian Development Bank and Edward Elgar Publishing.

Ferdjani, Hannane. 2012. “African students in China: An Exploration of Increasing Numbers and Their Motivations in Beijing.” Stellenbosch: Center for Chinese Studies, Stellenbosch University.

FOCAC. 2006. Beijing Action Plan (2007 – 2009). Beijing: The Forum on China-Africa Cooperation.

FOCAC. 2009. Sharm El Sheikh Action Plan (2010 - 2012). Beijing: The Forum on China-Africa Cooperation.

FOCAC. 2012. Beijing Action Plan (2013 – 2015). Beijing: The Forum on China-Africa Cooperation.

FOCAC. 2015. Beijing Action Plan (2016 - 2018). Beijing: The Forum on China-Africa Cooperation.

Foster, Vivien and Cecilia Briceno-Garmendia. 2009. "Africa's Infrastructure: A Time for Transformation." Africa Development Forum Series. Washington, D.C.: World Bank.

Gereffi, Gary and Karina Fernandez-Stark. 2011. "Global Value Chain Analysis: A Primer", North Carolina: Center on Globalization, Governance & Competitiveness (CGGC), Duke University.

Gu, Jing. 2009. "China's Private Enterprises in Africa and the Implications for African Development". *The European Journal of Development Research* 21 (4): 570-587. doi:10.1057/ejdr.2009.21.

Gutman, Jeffrey and Christine Zhang. 2015. "Aid Procurement and the Development of Local Industry: A Question for Africa." Global Working Papers, No. 77 of 82. Washington, D.C.: Brookings Institution.

Gutman, Jeffrey, Amadou Sy and Soumya Chattopadhyay. 2015. "Financing African Infrastructure: Can the World Deliver?" Washington, D.C.: Brookings Institution

Haidar, Jamal Ibrahim. 2012. "The Impact of Business Regulatory Reforms On Economic Growth". *Journal of The Japanese and International Economies* 26 (3): 285-307. doi:10.1016/j.jjie.2012.05.004.

Hou, Jun. 2017. "The relocation of Chinese manufacturing companies to Africa." Supporting Economic Transformation (SET). https://set.odi.org/jun-hou-the-relocation-of-chinese-manufacturing-companies-in-africa/

Human Rights Watch. 2011. "Labor abuses in Zambia's Chinese State-owned Copper Mines." Accessed December 20. https://www.hrw.org/report/2011/11/04/youll-be-fired-if-you-refuse/labor-abuses-zambias-chinese-state-owned-copper-mines

ICA. 2016. "Infrastructure Financing Trends in Africa - 2016." ICA Report-2016. Abidjan: The Infrastructure Consortium for Africa.

IFC. 2017. "Health & Education in Africa." Accessed January 3. http://www.ifc.org/wps/wcm/connect/REGION__EXT_Content/Regions/Sub-Saharan+Africa/Investments/HealthEducation/

IMF. 2016. "Trade Integration and Global Value Chains in Sub-Saharan Africa: In Pursuit of the Missing Link." African Department, Chapter V. Washington, D.C.: International Monetary Fund.

ITU. 2015. "Measuring the Information Society Report." Geneva: International Telecommunication Union.

Jidenma, Nmachi. 2013. "The Real Mobile Revolution: Africa's Smartphone Future". CNN. http://edition.cnn.com/2013/11/07/opinion/real-mobile-revolution-africa-smartphone/index.html.

Kaplinsky, Raphael, and Mike Morris. 2009. "Chinese FDI in Sub-Saharan Africa: Engaging with Large Dragons". The European Journal of Development Research 21 (4): 551-569. doi:10.1057/ejdr.2009.24.

Large, Daniel. 2008. "Beyond 'Dragonin The Bush': The Study of China Africa Relations". *African Affairs* 107 (426): 45-61. doi:10.1093/afraf/adm069.

Li, Anshan. 2007. “China and Africa: Policy and Challenges” China Security 3(3): 69 – 93.

Lin, Justin Yifu and Wang, Yan 2014. “China-Africa Cooperation in Structural Transformation: Ideas, Opportunities, and Finances.” WIDER Working Paper, No.2014/046. Helsinki: UNU-WIDER.

Liu, Peilong, Yan Guo, Xu Qian, Shenglan Tang, Zhihui Li, and Lincoln Chen. 2014. "China's Distinctive Engagement in Global Health". *The Lancet* 384 (9945): 793-804. doi:10.1016/s0140-6736(14)60725-x.

Lopes, Carlos. 2016. "Reinserting African Agency into Sino-Africa Relations". Strategic Review for Southern Africa 38 (1): 50-68.

Malancha Chakrabarty. 2016. "Ethiopia–China Economic Relations: A Classic Win–Win Situation?". *World Review of Political Economy* 7(2): 226. doi:10.13169/worlrevipoliecon.7.2.0226.

Mawdsley, E. (2008). “Fu Manchu versus Dr Livingstone in the Dark Continent? How British Broadsheet Newspapers Represent China, Africa and the West.” Political Geography, 27, pp. 509-529.

MOFCOM. 2011. "Introduction to the Special Loan for the Development of African SMEs." Beijing: Ministry of Commerce People's Republic of China.

Mohan, Giles. 2008. "China in Africa: A Review Essay". *Review of African Political Economy*35 (115): 155-173. doi:10.1080/03056240802011832.

Morris, Rosetta, and Abdul Aziz. 2011. "Ease of Doing Business and FDI Inflow to Sub□Saharan Africa and Asian Countries". *Cross Cultural Management: An International Journal* 18 (4): 400-411. doi:10.1108/13527601111179483.

Navarro, Peter, and Greg Autry. 2011. *Death by China: Confronting The Dragon - A Global Call to Action*. 1st ed. Pearson FT Press.

Nicolas, Francoise. 2017. “Chinese Investors in Ethiopia: The Perfect Match?” *Notes de l’Ifri*, Ifri.

Nsanzugwanko, Theopista. 2017. "Africa: Chinese Footwear Firm Sets Solid Foothold into Africa." Accessed January 20. The Forum on China-Africa Cooperation (FOCAC).

Novotony, Thomas E. and Ilona Kickbusch. 2008. “Global Health Diplomacy: A Bridge to Innovative Collaborative Action.” Global Update Forum for Health Research 5:41.

Nsehe, Mfonobong. 2017. "TECNO Launches New Selfie Smartphone for Africa." Forbes, March 29. Accessed November 20. https://www.forbes.com/sites/mfonobongnsehe/2017/03/29/tecno-launches-new-selfie-smartphone-for-africa/#5bd1da765dfa

OECD. 2004. "Accelerating Pro-Poor Growth Through Support for Private Sector Development". Paris: OECD DAC Network Poverty Reduction.

OECD. 2013. “Interconnected Economies: Benefiting from Global Value Chains.” Paris: OECD Publishing. dx.doi.org/10.1787/9789264189560-en.

OECD/IEA. 2016. "Boosting The Power Sector in Sub-Saharan Africa - China's Involvement.” Paris: International Energy Agency.

PASET. 2018. “PASET as an Africa-Led Solution.” Accra: The Partnership for skills in Applied Sciences, Engineering and Technology.

Reiner, Christian, and Cornelia Staritz. 2013. “Private Sector Development and Industrial Policy: Why, How and for Whom?,” In: ÖFSE (Hg.) Österreichische Entwicklungspolitik. 53–61.

Rui, Huaichuan. 2010. "Developing Country FDI and Development: The Case of Chinese FDI in The Sudan". *Transnational Corporations* 19 (3): 49-80. doi:10.18356/08e89398-en.

Sajitha, Bashir. 2015. "The Imperative of Skills Development for The Structural Transformation of Sub-Saharan Africa: Potential For China-World Bank-Africa Collaboration". Addis Ababa: World Bank.

Sautman, Barry, and Hairong Yan. 2015.” Localizing Chinese Enterprises in Africa: From Myths to Policies.” HKUST Thought Leadership Brief, No. 5. Hong Kong: HKUST.

Shajalal, Mohon, Junfang Xu, Jun Jing, Madeleine King, Jie Zhang, Peicheng Wang, Jennifer Bouey, and Feng Cheng. 2017. "China’s Engagement with Development Assistance for Health In Africa". *Global Health Research and Policy* 2 (1). doi:10.1186/s41256-017-0045-8.

Shen, Xiaofang. 2014. "Private Chinese Investment in Africa: Myths and Realities". *Development Policy Review* 33 (1): 83-106. doi:10.1111/dpr.12093.

Sun, Irene Yuan, Omid Kassiri, and Kartik Jayaram. 2017. "Dance of the lions and dragons" McKinsey & Company.

Sun, Yun. 2014. "Africa in China's Foreign Policy." Washington, D.C.: Brookings Institution.

Tambo, Ernest. 2016. "China-Africa Health Development Initiatives: Benefits and Implications for Shaping Innovative and Evidence-Informed National Health Policies and Programs in Sub-Saharan African Countries". *International Journal of MCH and AIDS (IJMA)* 5 (2). doi:10.21106/ijma.100.

Thompson, Drew. 2005. “China’s Soft Power in Africa: From the ‘Beijing Consensus’ to Health Diplomacy.” China Brief 5:21.

Timokhina, Olga. 2014. "Chinese Foreign Direct Investment in Africa In Corporate Social Responsibility Context". Working Paper No. 2014/29. Maastricht: Maastricht school of management.

Titiloye Ademola, Oyejide, Abiodun S Bankole, and Adeolu O Adewuyi. 2009. "China–Africa Trade Relations: Insights from AERC Scoping Studies". The European Journal Of Development Research 21 (4): 485-505. doi:10.1057/ejdr.2009.28.

Tsui, Benjamin. 2016. “Do Huawei’s Training Programs and Centers Transfer Skills to Africa?” Policy Brief No.14. Washington, D.C.: The John L. Thornton China Center at Brookings Institution.

Tull, Denis M. 2006. "China's Engagement in Africa: Scope, Significance and Consequences". *The Journal of Modern African Studies* 44 (03): 459 - 479. doi:10.1017/s0022278x06001856.

UNESCO. 2017a. Education For All. Paris: United Nations Educational, Scientific and Cultural Organization.

UNESCO. 2017b. UNESCO-China-Africa Tripartite Initiative on University Cooperation. Paris: United Nations Educational, Scientific and Cultural Organization.

UNIDO. 2011. "Industrial Value Chain Diagnostics: An Integrated Tool." Vienna: United Nations Industrial Development Organization.

UNIDO. 2017. UNIDO and Huajian Group Agree to Partner up for Sustainable Development in Africa. Vienna: United Nations Industrial Development Organization.

U.S. Department of State. 2017. 2017 Investment Climate Statements – Ethiopia. Washington, D.C.: U.S. Department of State.

Vaes, Sarah, and Huib Huyse. 2015. "Private Sector in Development Cooperation. Mapping International Debates, Donor Policies, And Flemish Development Cooperation". Leuven: KU Leuven.

Vera-Cruz, Alexandre, Luc Soete, Richard Nelson, Keun Lee, and Gabriela Dutrenit. 2013. *Learning, Capability Building and Innovation for Development*. Basingstoke: Palgrave Macmillan.

Youde, Jeremy. 2010. "China's Health Diplomacy in Africa". *China: An International Journal* 08 (01): 151-163. doi:10.1142/s0219747210000099.

Wang, Bijun, Rui Mao, and Qin Gou. 2014. "Overseas Impacts of China's Outward Direct Investment". *Asian Economic Policy Review* 9 (2): 227-249. doi:10.1111/aepr.12065.

Whalley, John, and Aaron Weisbrod. 2012. "The Contribution of Chinese FDI to Africa's Pre Crisis Growth Surge". *Global Economy Journal* 12 (4). doi:10.1515/1524-5861.1873.

Wolf, Christina. 2016. "China and Latecomer-Industrialization Processes in Sub-Saharan Africa: Situating The Role of (Industrial) Policy". *African Review of Economics and Finance* 8 (1): 45-77.

Woods, Ngaire. 2008. "Whose aid? Whose influence? China, emerging donors and the silent revolution in development assistance." *International Affairs*, 84(6): 1205–1221. doi:10.1111/j.1468-2346.2008.00765.x

World Bank. 2001. “Private Sector Development Strategy – Issues and Options”. Discussion Paper. Washington D.C.: World Bank.

World Bank. 2012. “Chinese FDI in Ethiopia: A World Bank Survey”. Washington D.C.: World Bank.

World Bank. 2013. “Doing business 2013: does doing business matter for foreign direct investment?” Doing business 2013. Washington D.C.: World Bank Group.

World Bank. 2014. "Doing Business 2015: Going Beyond Efficiency". A World Bank Group Flagship Report. Washington D.C.: World Bank Group.

World Bank. 2017. "Doing Business 2017: Equal Opportunity for All". A World Bank Group Flagship Report. Washington D.C.: World Bank Group.

Xiaoyang, Tang. 2016. "Does Chinese Employment Benefit Africans? Investigating Chinese Enterprises and Their Operations in Africa". *African Studies Quarterly* 16 (3-4). http://www.africa.ufl.edu/asq/v16/v16i3-4a8.pdf.

Yepes, Tito, Justin Pierce, and Vivien Foster. 2008. “Making Sense of Sub-Saharan Africa’s Infrastructure Endowment: A Benchmarking Approach.” Working Paper 1, Africa Infrastructure Country Diagnostic. Washington, D.C.: World Bank.

Yamada, Shoko. 2016. *Post-Education-For-All and Sustainable Development Paradigm: Structural Changes with Diversifying Actors and Norms*. 1st ed. Warrington: Emerald Group Publishing Limited.

Zafar, Ali. 2007. "The Growing Relationship Between China and Sub-Saharan Africa: Macroeconomic, Trade, Investment, And Aid Links". *The World Bank Research Observer* 22 (1): 103-130. doi:10.1093/wbro/lkm001.

Zhang, Jian, Ilan Alon, and Yanan Chen. 2014. "Does Chinese Investment Affect Sub-Saharan African Growth?". *International Journal of Emerging Markets* 9 (2): 257-275. doi:10.1108/ijoem-10-2013-0171.

Zhou, Ying, and Sabrina Luk. 2016. "Establishing Confucius Institutes: A Tool for Promoting China’S Soft Power?" *Journal of Contemporary China* 25 (100): 628-642. doi:10.1080/10670564.2015.1132961.

Zhu, Liangxiu. 2011. "Trying to Pull Together: Africans Are Asking Whether China Is Making Their Lunch or Eating It". The Economist, April 20. Accessed October 1. http://www.economist.com/node/18586448

국 문 초 록

중국의 진출이 사하라 이남 아프리카의 민간부문개발에 미치는 영향

서울대학교 국제대학원
국제학과 국제통상전공
전혜경

막강한 자본력으로 사하라 이남 아프리카(Sub-Saharan Africa, 이하 '아프리카')에 영향력을 확대하고 있는 중국은 여러 서방국가들은 물론이고 학계, 대중매체 등에서도 상당한 주목을 받고 있다. 그러나 아프리카 지역의 주요 경제 파트너국으로 부상했음에도 불구하고 중국의 대 아프리카 정책에 대한 비판의 목소리는 여전히 높다. 천연자원의 보고로 알려진 아프리카는 이를 필요로 하는 중국에게 기회의 땅이며 중국의 아프리카 진출 목적은 자원 확보에 있고, 대부분의 중국 투자자들은 정부의 이익에 따라 움직이는 국영기업(State-Owned Enterprise, SOE)이라고 알려져 있다. 이에 대해 일부에서는 중국의 진출이 지역 개발에 전혀 도움이 되지 않는다고 보고있다. 이러한 비판이 잘못된 것은 아니지만 상당히 일차원적인 시각이며 중국이 아프리카에 미치는 영향을 정확하게 분석하는데 걸림돌로 작용한다.

따라서 본 논문에서는 중국-아프리카의 경제 관계를 보다 다차원적으로 분석하고자 중국의 진출이 사하라 이남 아프리카의 민간부문개발(Private Sector Development, PSD)에 미치는 영향을 연구하였다. 분석적 프레임워크로는 아프리카개발은행(African Development Bank, AfDB)에서 발표한 민간부문개발전략 내용을 논문 요지에 맞게 수정하여 활용하였다. 본 연구는 PSD 분석 프레임워크를 통해 중국의 아프리카 진출이 실용주의 기조 하에 있지만 아프리카의 노동시장개발, 사회적경제적 인프라 구축 그리고 가치사슬개발에 있어 다양한 기회를 제공하며 민간부문개발에 상당한

기여를 하고 있음을 확인했다. 또한 중국만의 특별한 대외원조, 무역 및 투자방식은 국제사회에서 아프리카지역이 경제적, 지정학적 중요성을 회복하는데 큰 도움이 되었으며 동시에 중국은 아프리카의 기존 경제 파트너국들의 대안으로 떠올랐다.

본 논문은 현존하는 흑백논리에 기반하기 보다는 질적 분석을 통해 잘 알려지지 않고, 파편적으로 존재하는 중국-아프리카 경제관계를 밝히고, 개념화하여 기존 연구의 유의미한 공백을 채우는데 기여했다. 이는 중국과 아프리카 국가들에 시사하는 바가 크며 이를 토대로 향후 두 지역간의 관계를 보다 미래지향적으로 발전시킬 수 있을 것이라 전망한다.

주제어: 중국, 사하라 이남 아프리카, 민간부문개발(PSD), 무역, 외국인직접투자, 대외원조
학 번: 2016-25012